

Resettlement Plan

Project No. 49450-012
March 2018

TON: Renewable Energy Project

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CURRENCY EQUIVALENTS

(as of 15 April 2017)

Currency Unit	=	Tonga: pa'anga (TOP)
TOP1.00	=	US\$ 0.43
US\$1.00	=	TOP 2.31

NOTES

- (i) The fiscal year (FY) of the Government of Tonga ends on 31 December. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2011 ends on 31 December 2011.
- (ii) In this report, "\$" refers to US dollars

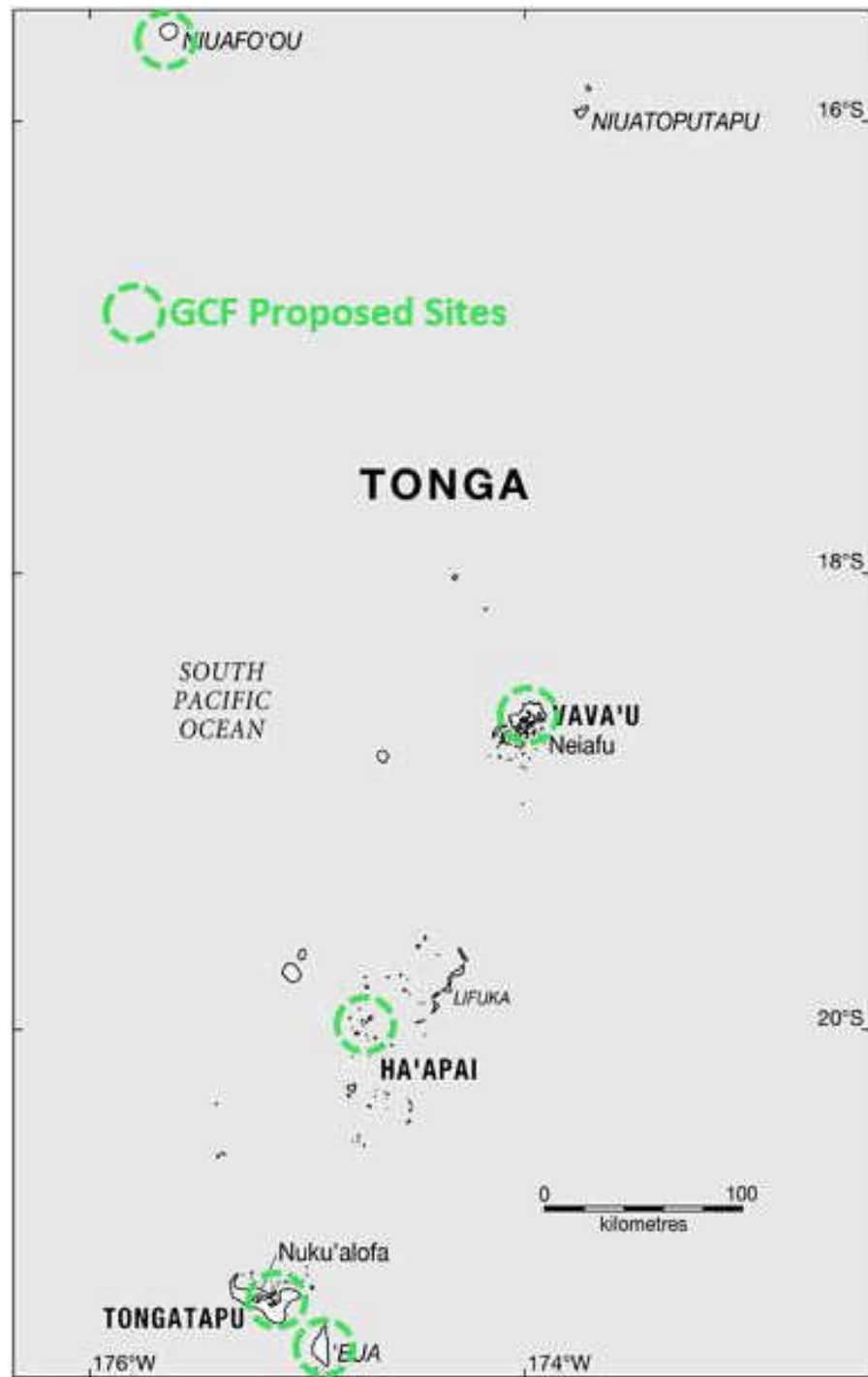
ABBREVIATIONS

ADB	Asian Development Bank
DP	Displaced Person
EA	Executing Agency
ESU	Environment and Social Unit
GAP	Gender Action Plan
GFP	Grievance Focal Point
GRC	Grievance Redress Committee
Ha	Hectares
HH	Households
LAR	Land Acquisition and Resettlement
MEIDECC	Ministry for Meteorology, Energy Information, Disaster Management, Environment, Climate Change and Communications
MAF	Ministry of Agriculture and Fisheries
MFP	Ministry of Finance and Planning
MLSNR	Ministry of Lands, Survey, Natural Resources
MOI	Ministry of Infrastructure
NGO's	Non-Government Organizations
PMU	Project Management Unit
PSC	Project Steering Committee
RP	Resettlement Plan
SPS	Safeguard Policy Statement
TPL	Tonga Power Limited

GLOSSARY OF TERMS

Affected Persons	A term used to describe all people that are affected by the project impacts. In the context of an RP, it refers to those that are economically or physically displaced by the project. It is increasingly being replaced by the term "Displaced Person" following ADB Safeguard Policy 2009 – but is still in common use in the field. The terms of affected persons (APs) and displaced persons (DPs) are used interchangeably in this document
Compensation	Means payment in cash or kind for an asset to be acquired or affected by a project at replacement cost at current market value.
Cut-off-date	Means the date after which people will NOT be considered eligible for compensation i.e. they are not included in the list of APs as defined by the census. Normally, the cut-off date is the date of the detailed measurement survey.
Displaced Persons	Sometimes referred to as Affected Persons (APs). In the context of involuntary resettlement, displaced persons are those who are physically displaced (relocation, loss of residential land, or loss of shelter) and/or economically displaced (loss of land, assets, access to assets, income sources, or means of livelihoods). This is a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or access to legally designated parks and protected areas.
Economic Displacement	Loss of land, assets, access to assets, income sources, or means of livelihoods as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or access to legally designated parks and protected areas.
Encroachers	Mean those people who move into the project area after the cut-off date and are therefore not eligible for compensation or other rehabilitation measures provided by the project.
Entitlement	means the range of measures comprising cash or in-kind compensation, relocation cost, income rehabilitation assistance, transfer assistance, income substitution, and relocation which are due to /business restoration due to DPs, depending on the type and degree nature of their losses, to restore their social and economic base.
Inventory of losses	It means the pre-appraisal inventory of assets as a preliminary record of affected or lost assets. Also referred to as the detailed measurement survey (DMS).
Land acquisition	It means the process whereby a person is compelled by a public agency to alienate all or part of the land s/he owns or possesses, to the ownership and possession of that agency, for public purposes, in return for fair compensation.
Meaningful Consultation	A process that: (i) begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle; (ii) provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people; (iii) is undertaken in an atmosphere free of intimidation or coercion; (iv) is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and (v) enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues.
Non-leased (non-titled)	It means those who have no recognizable rights or claims to the land that they are occupying and includes people using private or state land without permission, permit or grant i.e. those people without legal lease to land and/or structures occupied or used by them. ADB's policy explicitly states that such people cannot be denied compensation.
Poor	The poverty line established is T\$1638 per capita per year. It is estimated that 27% of Tongan households received incomes below that line, meaning that they experienced periodic difficulties in meeting their daily costs of living for food and other essential expenditures.
Physical Displacement	Relocation, loss of residential land, or loss of shelter as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or access to legally designated parks and protected areas.
Replacement cost	Means the method of valuing assets to replace the loss at current market value, or its nearest equivalent, and is the amount of cash or kind needed to replace an asset in its condition, without deduction of transaction costs or for any material salvaged.
Significant impact	It means 200 people or more will experience major impacts, which are defined as; (i) being physically displaced from housing, or (ii) losing ten per cent or more of their productive assets (income generating).
Vulnerable	It means any people who might suffer disproportionately or face the risk of being marginalized from the effects of resettlement and includes; (i) female-headed households with dependents; (ii) disabled household heads; (iii) poor households (within the meaning given previously); (iv) landless; (v) elderly households with no means of support; (vi) households without security of tenure; (vii) ethnic minorities; and (viii) marginal farmers (with landholdings of five acres or less).

Figure 1: Map of Project Area



I. EXECUTIVE SUMMARY

This Draft Resettlement Plan (RP) has been prepared by Tonga Power Limited (TPL) and the Ministry for Meteorology, Energy Information, Disaster Management, Environment, and Climate Change (MEIDECC) during the preparation of the Tonga Renewable Energy Project (TREP) in March to May 2017. This Project is assessed as Category B due to the need to lease private-owned lands and potential impacts to non-land assets including crops and trees.

The project is funded by the Asian Development Bank (ADB) and the Green Climate Fund and includes the required information as specified in the ADB Safeguard Policy Statement, 2009. This Draft Resettlement Plan (RP) is based on site visits, interviews, focus group discussions, and community consultations carried out between March and April 2017. With Project funding approval not expected until October 2017, an update of this RP is expected to be carried out before project implementation.

The preparation of this Resettlement Plan (RP) was carried out with Tonga Power Limited and MEIDECC to identify the proposed solar and wind farm sites based on current and previous feasibility studies undertaken by TPL, the Asian Development Bank and NZ Ministry of Foreign Affairs and Trade between 2014 to April 2017. Land ownership status for each of the proposed 12 (of 13) sites was confirmed by the Ministry of Lands, Survey and Natural Resources (MLSNR) following site identification and provision of project scope to date.

The project does not involve physical displacement of people and/or destruction of physical structures. It will, however, need to access approximately a total of 60.3 acres (24.4Ha) of private lands allotments¹) for Tongatapu and Outer Islands ranging in size from 1,500 sq m to about 2.5 acres per allotment.

Land Requirement

The land required for the project will affect 7 land allotments mainly in the outer islands of Vava'u, 'Eua, Ha'apai and Niuafo'ou. These exclude the three allotments already leased by Tonga Power Limited to build additional battery storage facilities (Popua, Vaini and Villa). Land requirements under this project are mainly privately-owned and are still to be leased under the project. They are mostly unused or partly used agricultural lands, with five allotments located in 'Eua and Ha'apai. The remaining two comprise of 2 allotments belonging to the King in Vava'u, and one allotment on government land in Niuafo'ou.

¹. This is based on the Constitution of Tonga (1875), every Tongan male over the age of 16 is entitled to a "tax allotment" of 3.3 hectares for agriculture, and a "town allotment" of between 758 m² and 1,618 m² for residential purposes. The wind turbine is proposed to be in the agricultural area.

Sub-Project Sites	Estimated Land Requirement	Current Land Use	Land Owners /Allotments	Number of APs
Tongatapu				
1. Solar farm battery expansion (Popua, Vaini and Villa)	N/A	Solar farm	TPL	N/A
Outer Islands				
2. Solar farm (on-grid: Vava'u and 'Eua)	3.91 acres (15,800 sq m)	Agricultural land (largely unused)	1 private land owners <u>1 King of Tonga</u> 2 Land Owners	1
2. Solar farm (off-grid: Ha'apai outer islands and Niuafo'ou island)	2.39 acres (11,300 sq m)	Agricultural land (largely unused)	4 private land owners <u>1 government</u> 5 land owners	4
Subtotal	6.3 acres		7 land owners	5

Ha = hectare, N/A = not applicable, sqm. = square meter, TPL = Tonga Power Limited.

The government approach to secure the land is through lease agreement, similar to government approach in recent ADB projects. This project will help the Government of Tonga to meet its target of 50% renewable energy production by 2020.

Key Stakeholders

There are three categories of stakeholders under this project: (i) government, (ii) private sector including business owners and land owners and (iii) the public including power users. The government stakeholders include: (i) national government, (ii) Ministry of Finance and National Planning (MFNP) (iii) Ministry of Meteorology, Energy, Information, Disaster Management, Environment, and Climate Change (MEIDECC) (iv) Ministry of Ministry of Land, Survey and Natural Resources (MLSNR) (v) Ministry of Internal Affairs (MIA) (vi) Ministry of Commerce, Tourism and Labour (MCTL) (vii) Ministry of Infrastructure (MOI) and (viii) Tonga Power Ltd (TPL).

Under the local government, the local government including the Governor and Town Officers are key stakeholders in the project. Also, His Majesty and the Nobles owning allotments are also project stakeholders. The private sector includes business owners such as members of the Chamber of Commerce and affected individual land owners. Lastly, 13 communities around the project sites who expect to benefit from a more stable and affordable power supply provided by solar and wind energy and battery installation are also key stakeholders under this Project.

Stakeholders' Consultations

The Team consulted with the major stakeholders during site visits from 28 March to 10 April 2017 on all project sites except Niuafo'ou. In total, at least 94 people, 42 women (45%), were consulted during consultations carried out by the Team from 28 March to 10 April 2017 in all project sites. Initial consultations indicated willingness by land owners to lease part of their land to the Project.

Entitlements

All five private land owners are considered as affected persons (APs) under this project thus are entitled to compensation under the Project. Also, the King and the Noble who own the remaining two allotments in the project sites are also expected to be compensated by the government.

Entitlement Matrix			
Type of Loss	Specification	Affected People	Compensation Entitlements
Permanent loss of rural or townland	All land losses independent of impact severity	Land Owners	<ul style="list-style-type: none"> Long term sub-lease based on the market value of the affected land. Or, once-off compensation equivalent to the 20-year lease, depending on the land owner's preference. Provision of all legal and other expenses associated with the lease. Compensation will be paid for unaffected portions of plots if they become unviable or have their usage rights altered after impact occurs. Payment for the affected assets/improvements on the land to be leased.
Economic and physical displacement			<ul style="list-style-type: none"> ADB SPS 2009 will be enforced in that assistance will be provided to vulnerable APs/DPs, if any identified, to ensure that living standards the same as, or wherever possible better than, pre-project levels. ..
Standing Crops	Crops affected	Land Users	<ul style="list-style-type: none"> Cash compensation equivalent to the gross income from the crop calculated at the maximum annual market value of the total annual produce from affected land or the formal government rate – whichever is greater
Trees	Trees affected	Land Users	<ul style="list-style-type: none"> Fruit Trees - The full cost of seedling, cost of preparation of a garden and lost profit at annual income (using maximum annual market values) multiplied by the number of years of fruiting remaining or the regular government rate – whichever is greater. Timber Trees - The full cost of seedling, cost of preparation of a garden and maximum market value of maximum timber production per tree (at full maturity) or the regular government rate – whichever is greater.
Any other loss not identified			<ul style="list-style-type: none"> Unanticipated impacts shall be documented and mitigated based on the principles provided in ADB's involuntary resettlement policy

Budget

Table 8 below shows the estimated budget for LAR activities below. It is noted that this indicative budget accounts for land requirements for the associated Tongatapu solar and wind generation facilities which are not funded under the TREP project. A total amount of T\$1,226,500 (USD 525,888) is the estimated cost of this Resettlement Plan.

S.N.	Items	Cost (TOP)	Cost (USD)
A	Compensation		
1	Land lease for 61Ha inc trees (TOP 16,667 ² per acre x 60.3)	1.05M	430,895
2	Assistance to vulnerable groups, if required	50,000	21,459
	Sub-Total (A)	1.10M	452,354
B	Implementation		
1	Land Survey (DMS) Tongatapu – TOP 20,000	60,000	

² Based on recent cost of acquiring Noutua site for TOP 50,000 for 3 acres each allotment

	'Eua – 5,000 Vava'u- 5,000 Ha'apai – 5,00 x4 = 20,000 Niuafo'ou- 10,000		25,725
2	Consultations	50,000	21,460
	Sub Total (B)	110,000	47,185
	A + B Total	1,210,000	499,539
	Contingency (10%)	121,000	49,953
	TOTAL USD	1,331,000	549,492

Ha = hectare, M = million

Source: Feasibility Study Consultants

Implementation Timetable

As per Lands Act 1988 revised edition and Ministry of Land's internal policies and procedures, there are about 16 steps to secure the lease title to the proposed sites and approximately seven months to execute for each site. The lease process in Tongatapu and outer islands, however, could be undertaken in parallel with each other, to attempt to secure this for all locations within this period, if possible. This estimate was based on recent lease agreements carried out by government for its renewable energy projects.

S.N.	Activities	Estimated Time	In-Charge
1	Confirmation of land requirement and initial identification of land owner through Town Officer confirmation	16 Weeks (March-June 2017)	TPL and MEIDECC/ Consultants/PMU
	<i>Note: If unregistered land or land owner not identified, the Ministry of Lands, Survey and Natural Resources (MLSNR), to conduct a land survey upon the request of project proponent.</i>	1-2 Weeks	
3	Contact land owner (through the Town Officer)	3 days	TPL and MEIDECC/ Consultants/PMU
4	Meet with land owner to confirm initial agreement to lease the land	1 week	As above
5	Verify land ownership status, government land valuation and market valuation	2 weeks	Ministry of Lands Private Valuer
6	Agree proposed compensation amount within TPL and MEIDECC before negotiation with land owner	1 week	TPL/ MEIDECC Committee
7	Organize follow-up meeting with land owner, or representative, to negotiate price	2 weeks	TPL/ MEIDECC Consultants/PMU
8	Allow time for land owner to consult with family and own land valuer	1 week	Land owner
9	Prepare government lease form and compensation agreement form	1 week	Ministry of Lands
10	Facilitate signing and payment of lease form and compensation agreement (50% payment or as per agreement) with land owner(s) with <u>Third Party Validation</u> ³	1 day	TPL/ MEIDECC Consultants/PMU

³ A Third-Party Validator could be someone who is a respected member of the general community who could certify that the affected person entered into the agreement without coercion and with informed consent.

S.N.	Activities	Estimated Time	In-Charge
11	Compile forms and return to MLSNR for Minister's endorsement to get to Cabinet approval	1 week	TPL/ MEIDECC Consultants/PMU
12	Submit for Cabinet approval	1-2 weeks	MLSNR
13	Payment (final 50% or as per agreement with land owners)	1 day	TPL/ MEIDECC Consultants/PMU
14	Collect Deed of Lease from MLSNR	1 week (if priority)	TPL/ MEIDECC Consultants/PMU
15	Final land survey and submission to MLNSR for filing	1 week	TPL/ MEIDECC MLSNR
16	Proponent submits the Deed of Lease and compensation completion report to ADB	1 week	TPL/ MEIDECC Consultants/PMU
	Estimate Time Frame	7 Months	
17	Commencement of civil works		

I. PROJECT DESCRIPTION

A. General Description

Background

1. ADB is providing assistance to prepare safeguards due diligence for renewable energy proposals at 10 sites throughout four island groups in Tonga for submission to the Green Climate Fund (GCF) Board.
2. The Board of the Green Climate Fund (GCF) announced its support for the *Pacific Islands Renewable Energy Facility* (the Facility) in December 2016. The Facility will help seven Pacific island countries transition to a renewable energy future. The Facility objective is to transform the electricity production sectors across the Pacific to low carbon, climate resilient pathways, and the Facility outcome will be expanded access to clean, resilient and affordable energy.

Tonga Renewable Energy Project (TREP)

3. The proposed Tonga Renewable Energy Project (TREP) takes place within the Facility and is the second project submitted after the Cook Islands. Expected Project benefits from TREP include delivery of an estimated lifetime reduction of 340,395 tCO_{2e} emissions, and it will contribute significantly to increasing the contribution of renewables to Tonga electricity production from under 10% to 50% by 2020. Paradigm shift: TREP will play a central role in carrying renewable energy use in Tonga to a tipping point – after which renewable energy will become a more default investment for both private and public sectors.
4. TREP investments focus on renewable offgrid energy generation and Battery Energy Storage Systems (BESS) which are both on-grid and offgrid. TREP invests on Tongatapu (BESS only) and at least seven outer islands. TREP also includes the necessary capacity development and training programs to ensure long-term sustainability of project impacts.
5. The Project will comprise the following sub-projects:

On-Grid

- (i) Stand-alone BESS on Tongatapu– Installation of BESS storage facilities on Tongatapu (Niutoua);
- (ii) Associated BESS to be located next to grid-connected solar PV farms and wind farm on Tongatapu– Installation of BESS storage facilities on new solar PV farms and wind farms on Tongatapu (Niutoua); and
- (iii) *BESS and associated Solar farms* – Installation of BESS storage facilities on existing (Popua, Vaini & Villa) and new solar farms on Tongatapu (Matafonua & Fahefa), Eua and Vava'u islands.

Mini-Grid

- (iv) *Solar farm and BESS*- Construction of solar farm in four outer islands of Ha'apai and the remote island of Niufu'ou.

Capacity Building

- (v) Project management and infrastructure maintenance.

B. Description of Project Components

6. In total, there are 11 proposed sites under the Project. Six are located on the main island of Tongatapu and one site in each of the islands of 'Eua, Vava'u and Niuafo'ou and four sites ('O'ua, Tungua, Kotu and Mo'unga'one) in Ha'apai. Through careful engineering design, the

project will lease the minimum land required by the project and not lease more than what is required.

7. **Main Island (Tongatapu).** On the main island of Tongatapu, there are six proposed sites for building additional BESS systems for both solar and wind energy sources (5 solar and 1 wind) with three existing solar sites in Popua, Vaini and Villa for building additional storage systems (BESS) with 2.3MW/1.15 MWh battery capacity. The proposed new two solar sites in Fahefa and Matafonua will also be complemented with BESS storage facilities (2MW and 700 kW capacity) as well as the one wind farm site along the coast of Niutoua village⁴ with 275 kW capacity each/5.3MW under the project.

8. **Outer Islands ('Eua, Vava'u, Ha'apai and Niuafo'ou).** All projects for the outer islands are for solar energy. The project proposals in 'Eua and Vava'u are to expand both generating and storage capacities of these on-grid solar farms. While the five proposed off-grid sites (four islands in Ha'apai) and on Niuafo'ou, are to construct a new mini-solar farm with storage facility.

Table 1: Summary of Proposed Works

Summary of Proposed Works in Tongatapu

Project location / existing use	Project Description	Additional Storage capacity
1. Popua. Existing power generation site. solar farm, and BESS	Short term BESS, Scada control and mini grid controller	2.3MW/1.15 MWh battery
2. Vaini. Existing solar farm and BESS	BESS - Short term storage	2.3MW/1.15 MWh battery
3. Villa. Solar farm under construction	BESS - Long term storage	2.3 MW /16 MWh battery
4. Fahefa. Agricultural land.	BESS energy storage and new associated solar PV farm	700 kW / 350 kWh
5. Matafonua Village (next to larger Nukunuku Village). Agricultural land.	BESS energy storage and new associated solar PV farm	700 kW / 350 kWh
6. Niutoua. Adjacent to wind farm under construction by JICA. Agricultural land (largely unused).	BESS energy storage and new associated Wind Farms	1.8 MW long term storage + 900 kWh battery

⁴ The wind farm will be built continuously along the coast of Niutoua. The breakdown of the subproject into 1.3 MW and two 2MW capacity is for technical reason (for the power system not to overflow) but for the construction, the three wind farms (20 wind turbines) will be constructed next to each other thus considered as on one site (Niutoua village).

Summary of Proposed Works in Outer Islands

Project location / existing use	Project Description	Additional Generation Capacity	Additional Storage Capacity
1. 'Eua. Adjacent to existing solar farm. Unused agricultural land.	Additional 400 kW solar generation, BESS	350 kW	0.9 MWh
2. Vava'u. Across road from existing power generation and solar farm. Old coconut plantation (unused).	Additional 500 kW solar generation, BESS	300 kW	0.5 MWh
3. Ha'apai outer islands ⁵ <ul style="list-style-type: none"> • 'O'ua • Tongva • Kotu • Mo'unga'one 	4 x Mini-grid systems with solar PV generation, battery storage and small generator	0.25MW (new)	0.47MWh (new)
4. Niuafo'ou	Solar mini-grid and battery storage	0.250MW (new)	0.40MWh (new)

⁵ Existing identified sites are vacant grassy plots within or adjacent to village. Except Kotu site, with some mango and breadfruit trees and pandanus plants.

II. SCOPE OF LAND ACQUISITION AND RESETTLEMENT

A. Potential Impacts

9. There is no expected risk of displacement, loss of home, and/or loss of major income source. However, the affected families are likely to lose approximately a total of 6.3 acres of private lands (allotments⁶) for the Outer Islands. All interviewed APs view leasing their land as a welcome opportunity since the sites are idle or partly used agricultural or town allotments. In addition, the APs also have other accessible allotments for agriculture. Most importantly, the potential lease income from the project is a much welcome opportunity for the land owners and their families. During interviews, APs stated that they are very much agreeable to allow the government to use the land for the solar or wind projects to improve their power source and to hopefully decrease their household's power cost.

10. There is no expected negative impact on the social structure of the APs and the communities around the project site since land acquisition will not require physical displacement. There are no expected adverse impacts on cultural identities or heritage of the APs resulting from land acquisition. In addition, keeping World War II historical sites in the area intact, such as bunkers and canons, will be considered in the project design. During the course of the social team fieldwork, no sacred sites or similar areas were identified.

11. Due to the above, the project has been categorized as Category B thus requiring the preparation of this RP. This is due to the need to lease private-owned lands and potential impacts to non-land assets including crops and trees. This RP identifies the involuntary resettlement impact (economic due to loss of access to the land for the lease period by the land owner).

12. In total, the 6.3 acres land requirement will affect 7 affected land allotments in all project sites. These exclude the three allotments already leased by Tonga Power Limited to build additional battery storage facilities (Popua, Vaini and Villa). These 7 allotments, are mainly privately-owned, are still to be leased under the project (see Table 1 below). They are mostly unused or partly used agricultural lands with 5 individually-owned allotments (located in 'Eua and Ha'apai), 1 allotment belonging to the King (Vava'u), and 1 allotment initially reported as a government land on Niuafo'ou.

Tongatapu

In the main island of Tongatapu, the extension of three existing solar farm sites under TREP (Popua, Vaini and Villa) will not require land acquisition. All three proposed sites are within current TPL leased lands for 20 years⁷ (Appendix A TPL lease Records). However, TREP BESS project components will be co-located with the new proposed solar and wind farms and Figure 1 illustrates the map of proposed sites on the main island of Tongatapu with proposed solar extension site (yellow circle), new solar sites (red circle), and Niutoua wind farms (top blue circle).

⁶ Based on The Constitution of Tonga (1875), every Tongan male over the age of 16 is entitled to a "tax allotment" of 3.3 hectares for agriculture, and a "town allotment" of between 758 m² and 1,618 m² for residential purposes. The wind turbine is proposed to be in the agricultural area.

⁷ Leases were secured with land owners by TPL on February 2012 (Popua), November 2012 (Vaini), and June 2015 (Villa).

Figure 1 – Tongatapu TREP BESS sites



Outer Islands

13. All the seven proposed sites in the four outer islands will require private lands estimated to be about 6.3 acres (2.5 Ha) in total. Five are individually-owned allotments, one allotment belonging to the King of Tonga (Vava'u), and one site reportedly is a government-owned land (Niufo'ou). This will be confirmed during detailed design.

14. The land for on-grid sites in the outer islands ('Eua and Vava'u), will be required for the construction of new solar and wind farms with storage facilities in these communities. In 'Eua, the proposed site is within the main town of the island ('Ohonua) and in Vava'u, the proposed site is at the outskirts of the town area (Neiafu).

Figure 2. Outer Island 'Eua proposed site (yellow box)



Figure 3. Outer Island - Vava'u proposed site (yellow box)



15. The land for the off-grid sites (Ha'apai and Niuafu'ou), will be utilized for building a mini-grid to upgrade the source of power supply for these remote communities (at least 1,650 people⁸) from solar home system (SHS) that powers mostly household bulbs. This is to increase the power supply capacity to power essential home appliances including refrigerators, freezers, washing machines, and flat iron. Also, to facilitate income generating activities including ability to operate carpentry tools and power larger communal facilities to allow, particularly, women's groups to weave mats at night. Currently, some of these households can use these appliances with the help of few diesel generators on their islands; however, paying almost twice the price of fuel compared to the capital (Tongatapu).

⁸ Tonga GCF Concept Note, 17 March 2017

Figure 4. Outer Island Ha'apai – 'O'ua



Figure 5. Outer Island Ha'apai –Tungua



Figure 6. Outer Island Ha'apai -Mo'unga'one Proposed site (#2)

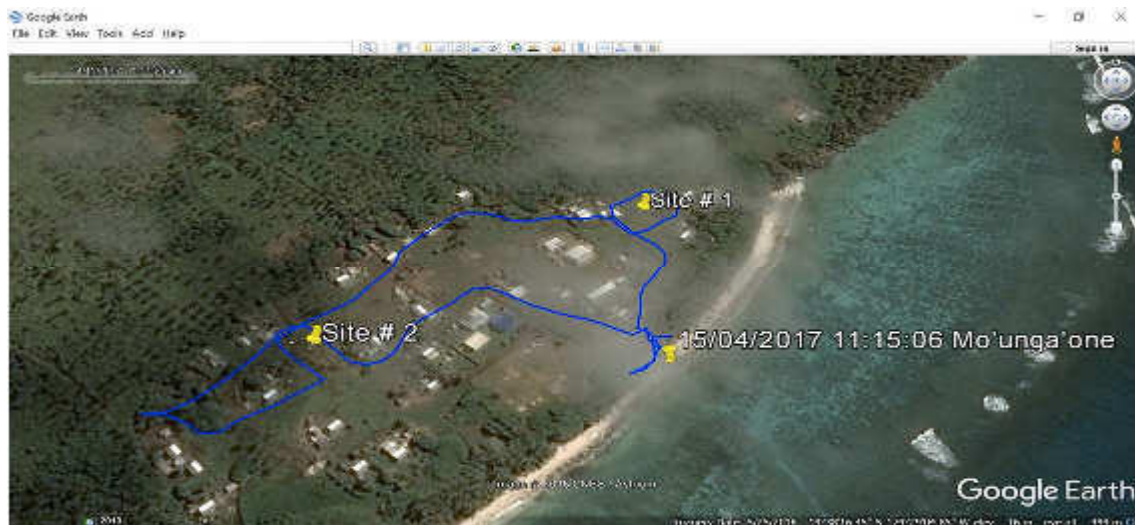
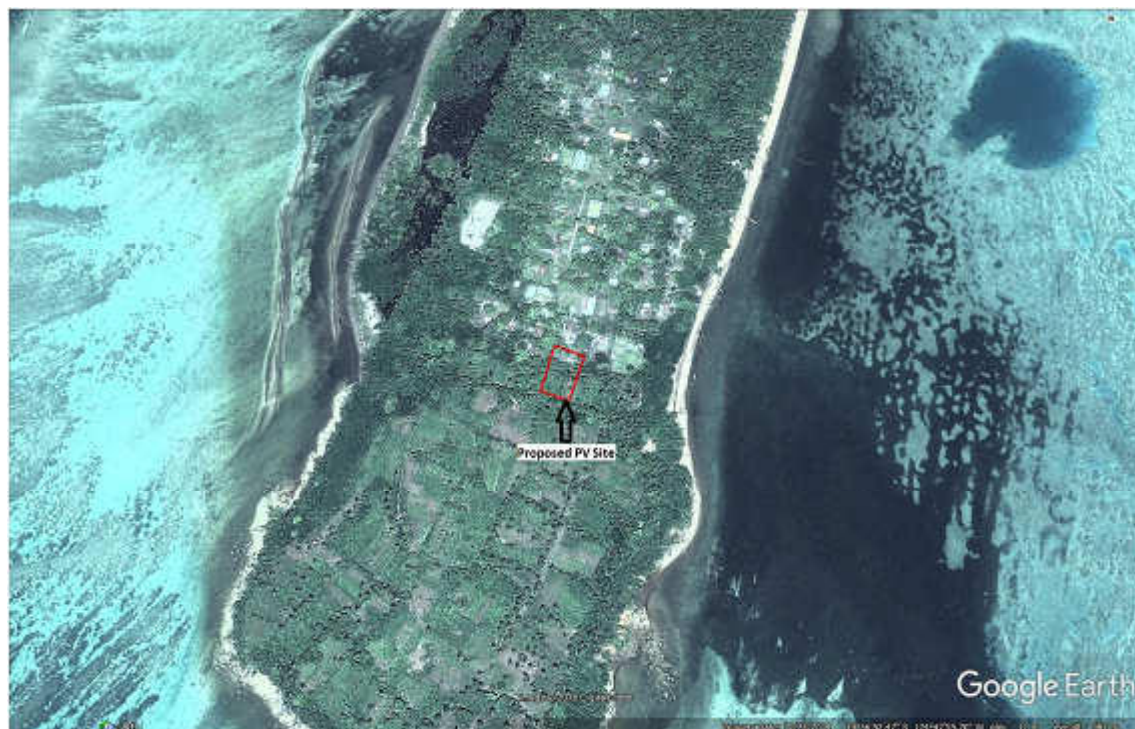


Figure 7. Outer Island - Kotu



16. In the four Ha'apai outer islands, the majority of the proposed sites are in the center of the community ('O'ua, Kotu, and Mo'unga'one) with the exception of one site (Kotu) where the proposed location is at the northern end of the community. In Niufu'ou, the proposed site is at the airport (Sapa'ata in the north). The Niufu'ou mini-grid will extend out from the centralized solar plant to all of the villages by two long feeders. One feeder will extend from the solar plant east to Esia while the other feeder will extend from the solar plant south down as far as Tongamama'o.

Figure 8. Niuafu'ou island map (proposed site is up north on top of Esia and Sapa'ata)



17. Table 2 below provides the breakdown of land requirement and number of affected persons (APs) or allotments for each project site:

Table 2: Summary of Land Requirements**Summary of Proposed Works in Tongatapu**

Project location / existing use	Project Description	Additional Generation capacity	Additional Storage Capacity	Land Requirements	No. of Affected Allotments
1. Popua. Existing power generation site. Solar farm, and BESS	Short term BESS, Scada control and mini grid controller	-	2.3MW/1.15 MWh battery	No additional land required.	n/a
2. Vaini. Existing solar farm and BESS	BESS - Short-term storage	-	2.3MW/1.15 MWh battery	No additional land required.	n/a
3. Villa. Solar farm under construction	BESS - Long term storage	-	2.3 MW /16 MWh battery	No additional land required.	n/a

Summary of Proposed Works in Outer Islands

Project location / existing use	Project Description	Additional Generation capacity	Additional Storage Capacity	Land Requirement	No. of Affected Allotments
1. 'Eua. Adjacent to existing solar farm. Unused agricultural land.	Additional 400 kW solar generation, BESS	400 kW	500 kWh	3,800 m ² (.94 acre)	1
2. Vava'u. Across road from existing power generation and solar farm. Old	Additional 500 kW solar generation, BESS	500 kW	1.1 MW /1.5 MWh	12,000 m ² (2.97 acres)	1

Project location / existing use	Project Description	Additional Generation capacity	Additional Storage Capacity	Land Requirement	No. of Affected Allotments
coconut plantation (unused).					
3. Ha'apai outer islands ⁹ <ul style="list-style-type: none"> • 'O'ua • Tongva • Kotu • Mo'unga'o ne 	4 x Mini-grid systems with solar PV generation, battery storage and small generator	0.32MW	1.68MWh	1,900 m ² (.47 acre) 2,960 m ² (.73 acre) 2,205 m ² (.55 acre) 1,500 m ² (.37 acre)	1 1 1 1
4. Niuafo'ou:	Solar mini-grid and battery storage	0.122MW (new)	0.52MWh (new)	2,765 m ² (.68 acres)	1
			Sub Total	27,130 m² 6.3 acres (2.5 Ha)	7
	Total Land Required (Tongatapu and Outer Islands)			2.5 Ha	7 allotments

BESS = batter energy storage system, Ha = hectare, m = meter, MW = megawatt, MWh = megawatt-hour, PV = photovoltaic.

B. Summary of Key Impacts

18. Table 3 below shows a summary of the key assets that will be acquired and some economically affected persons or APs (individual private owners of these allotments) (see Appendix B-Land Titles).

19. All sites will not require removal of commercial or residential structures. There are however some sites that may require cutting of productive trees and cash crops that will require compensation. This will be determined during the Project's detailed design.

20. The majority of the proposed sites are agricultural lands that either idle or planted with trees, including mango or breadfruits, and cash crops, such as banana plant and pandanus plants used for making the Tongan mats, an important cash source for Tongan families in the rural areas.

21. The owners of private allotments are considered APs as land will be required to be leased from the land owners for the use of the project. The maximum lease period allowed by law for these allotments is 20 years; except 'reverted' lands or lands whose ownership has been returned to the government, the maximum lease period allowed is 50 years.

22. In terms of impact, APs in the outer islands are to lose under <10 per cent of their bush allotments. Interviews conducted by the Feasibility Study Team suggest that access to land by APs for agricultural purposes is not only limited to one allotment due commonly to Tongan family's circumstances where they tend to have access to other lands (although unofficially). For example, this may be through land owned by relatives moving to the main island or overseas commonly to New Zealand or Australia.

23. Also, the majority of the proposed sites are often idle or partly tended agricultural lands due to migration particularly in the outer islands. Moreover, another reason cited is increased

⁹ Existing identified sites are vacant grassy plots within or adjacent to village. Except Kotu site, with some mango and breadfruit trees and pandanus plants.

interest by the younger generation (especially in Tongatapu) to rely on paid employment compared to farming for food or income was cited during consultations. Land owners or their caretakers welcome the prospect of leasing lands to the Project due to the potential income it may bring to their families, either through a lump sum payment or annual fees.

Table 3: Summary of Land Requirement and Displaced People

Sub-Project Sites	Estimated Land Requirement	Current Land Use	Land Owners /Allotments	Number of APs
Outer Islands				
1. Solar farm (on-grid: Vava'u and 'Eua)	3.91 acres (15,800 sq m)	Agricultural land (largely unused)	1 private land owners 1 King of Tonga	4
2. Solar farm (off-grid: Ha'apai outer islands and Niufu'ou island)	2.39 acres (11,300 sq m)	Agricultural land (largely unused)	4 private land owners 1 government	10
Total	6.3 acres		7 land owners	

III. SOCIOECONOMIC INFORMATION AND PROFILE

A. Affected People

24. **APs.** Overall, the 2.5 Ha required by the project for the 10 of 13¹⁰ sites in the five islands of Tonga¹¹, will affect 7 land owners including (i) 5 private land owners (1 from 'Eua, 4 from Ha'apai), (ii) His Majesty, the King of Tonga (Vava'u), and (iii) the government (Niuafu'ou). There are no affected landowners in Tongatapu.

25. **'Eua.** There are 4 APs belonging to the household of the only land owner in the area (Lesiaki Luaki). His son is the TCC Mobile branch manager in 'Eua. Two of the 4 land owners in the four outer islands of Ha'apai are in New Zealand and two are in the island. There are about 10 APs belonging to 2 land owners on the islands.

26. **Ha'apai.** In Ha'apai, 3 of the 4 land owners in the 4 project islands are living overseas (New Zealand) and one on-island. Based on the 2016 Census, it is estimated that there are about 4 APs belonging to the only and owning household living on the island (Tungua). There were however caretakers for each site who are mostly family members e.g. parents or sibling. In particular, the caretaker for the registered land owner in 'O'ua island who has been living in Australia for sometime are the land owner's parents; in Kotu, the caretaker of the land is the elderly brother of the heir to the land has been living in New Zealand for over 30 years; and the land owner's heir in Mo'unga'one, is also living overseas for more than 50 years.

27. **Livelihood.** The 1 of 4 private land owners and their households in Ha'apai, rely mainly on fishing and making mats while the other two are living in New Zealand. While the private land owner in 'Eua relies on private employment as TCC Mobile Manager for the island.

28. There are no vulnerable groups identified during this study. This however will be confirmed during detailed design.

29. **Gender.** Following the land ownership law under the Constitution of Tonga that allows only the eldest male child inherits land, all 7 private land owners are males except one female (widow), who has temporary ownership of the land until she passes away or transfers it to her eldest son.

30. The table below provides the list the name of the affected land owners, their gender, and estimate of potential losses:

Table 4: Details of Land Requirement, Loss, and List of Land Owners

Project Site	Land Owner ¹²	Estimated Land (Acre)	Structure Lost	Crops & Trees	Affected Persons			
					Physically		Economically	
					M	F	M	F
Tongatapu								
1. Popua	Tonga Power Ltd	n/a	n/a	n/a				
2. Vaini	Tonga Power Ltd	n/a	n/a	n/a				
3. Villa.	Tonga Power Ltd	n/a	n/a	n/a				
Outer Islands								
1. 'Eua	1. Lisiaki Luaki,	0.94	—	TBC	—	—	1	
	Block 68/105, Lot 31							

¹⁰ The other 3 are already leased by TPL

¹¹ Tongatapu, 'Eua, Vava'u, Ha'apai outer islands, and Niuafu'ou

¹² Source: Ministry of Lands, Survey, and Natural Resources, April 2017

Project Site	Land Owner ¹²	Estimated Land (Acre)	Structure Lost	Crops & Trees	Affected Persons			
2. Vava'u. Old coconut plantation	2. His Majesty	2.97	—	Old coconut trees	—	—	1	
3. Ha'apai Outer Islands								
- 'O'ua	3. Penioni Tohi (lives in New Zealand)	0.5	—	Vacant land	—	—	1	
	O'ua Island, Lot 18							
- Tungua	4. Siasi Tui'neau'	0.73	—	Vacant land	—	—	1	
	Block 141/116, Lot 53							
- Kotu	5. Simote Ilangana (lives in New Zealand)	0.55	—	TBC	—	—	1	
	Kotu Island, Lot 30							
- Mo'unga'one	6. U. Foliaki Fainga'anuku	0.37	—	Vacant land	TBC	TBC	1	
	Block 162/131, Lot 46							
4. Niuafo'ou	7. To be confirmed	0.68	TBC	TBC			TBC	
	(if government owned)							
	Total (Acre/Ha)	2.5	Hectares	Total Allotments	7			

F = female, Ha = hectare, M = male, N/A = not applicable, TBC = to be confirmed.

B. Socioeconomic Profile of Project Communities

Demography

31. The preliminary published data from the 2016 census records a total population of 100,745 people for Tonga, distributed over 36 of its 172 islands. This is compared to 103,036 recorded in the 2011 census, showing a decrease of 2,291 people over the past 5 years¹³. This reduction is due to the high rates of emigration from Tonga, as the diaspora community continues to grow, particularly in New Zealand, Australia, and the USA.

32. Some 70 percent of the population resides on the largest island of Tongatapu, on which the capital, Nuku'alofa, is situated. There has been a steady increase in urbanization, with people moving to Tongatapu, particularly in Nuku'alofa, for increased employment and education opportunities. Over the last three decades, the population density in Nuku'alofa increased from 184 persons/km² to 245.1 persons/ km², well above the national figure of 150.5 persons/ km². This population growth increases pressure on land demand for settlement, particularly in the urban areas.

Economy

33. In general, Tonga has high standards of education and health. However, the economy is vulnerable, with limited local opportunities, a steady outflow of skilled persons moving overseas for opportunities, and dependence (70%) on rural livelihoods of agriculture and fisheries, where access to markets can be limited.¹⁴

¹³ Statistics Department (2017): *Tonga National Population and Housing Census 2016. Preliminary Results*.

¹⁴ IFAD: *Rural Poverty in Tonga*. Available at <http://www.ruralpovertyportal.org/country/home/tags/tonga>. Accessed 24/4/17.

34. Subsistence agriculture plays an important role for many families, contributing to food production for the family, as well as additional income. Production focuses on a range of traditional root crops such as yams, taro, sweet potato and cassava. There has been commercial production with a focus on squash pumpkin for export. However, considerable effort has been made to diversify into higher-value export crops, notably vanilla and watermelon. Issues of quality control, disease management and market demand fluctuations make growth in this sector challenging.

35. Remittances sent from relatives working abroad also play a significant role in the Tongan economy, and in the economy of individual households. Recent global economic downturns have significantly impacted on this financial flow, increasing the level of hardship experienced by many families in Tonga.

36. Looking at Tonga's GDP, the agriculture was the main economic contributor to the Tongan economy from 2000 – 2009. Public administration and services strictly follow this. When the GDP data is aggregated to the sector level, the services sector is the highest contributor to the GDP. This indicates a change in the economy, with gradual diversification from agriculture to services. It is expected that this sector will continue to strengthen, particularly with opportunities in the tourism market. Following is a brief description of each proposed site:

1. Tongatapu

37. There are six project sites in Tongatapu. Three are located in the rural area including Fahefa, Matafonua, and Niutotua and another three are located within the urban area of Popua, Vaini and Vila. Tofoa (the village location for Villa site), has the largest population at 3,510 in 2016 census, followed by Vaini at 3,294 and Popua, with a current population of 3,294.

38. Meanwhile, in the rural project sites, Niutoua is the largest village with the population of 671 during the 2016 Census. This was followed by Fahefa at 431 people, and Matafounua at 235 people.

Table 4: Population of Villages in Proximity to each Project Site - Tongatapu

Village	Population (2016 Census)	Change from 2011 Census
1. Popua (existing power generation site)	1,854	- 0.8%
2. Vaini (village near existing solar farm)	3,294	+ 0.4%
3. Tofoa (village location for Villa site)	3,510	- 0.1%
4. Fahefa (village near proposed new solar facility with BESS)	431	+ 0.8%
5. Matafonua (village near proposed new solar facility with BESS)	235	+ 7.5%
6. Niutoua (village closest to proposed wind farm with BESS)	671	- 1.9%

2. Outer Islands

39. There are seven project sites in the outer islands: one on each of the project sites on the island of 'Eua, Vava'u, four in the outer islands of Ha'apai and Niuafu'ou. Vava'u has the largest population in the outer islands outside Tongatapu with a population of 13,740, followed by 'Eua with a population of 4,950 and Niuafu'ou with 493 people. The four Ha'apai outer islands have the smallest population ranging from 92 to 232.

Table 5. Population of Villages in Proximity to each Project Site – Outer Islands

Outer Islands	Population (2016 Census)	Population (2011 Census)	Change from 2011 Census	Males		Females		Households	
				2011	2016	2011	2016	2011	2016
1. Vava'u	13,740	14,922	-7.92	7,559	6,872	7,363	6,868	2,834	2,742
2. 'Eua	4,950	5,016	-1.32%	2,514	2,489	2,502	2,461	870	885
3. Ha'apai-'O'ua	116	144	-19.44%	83	69	61	47	28	25
4. Ha'apai-Tungua	187	232	-19.40%	121	94	111	93	43	37
5. Ha'apai-Kotu	129	178	-27.53%	91	65	87	64	36	30
6. Ha'apai-Mo'unga'one	63	92	-31.52%	37	31	55	32	20	15
7. Niuafo'ou	493	523	-5.74%	277	264	246	229	114	101

2. 1 Vava'u

40. Vava'u is the name of the main island in the Vava'u group of islands in the north. The island is formed from raised coral, with a maximum elevation of 213m and a terraced landscape formation. The coral limestone is overlain with volcanic soils up to 9 m in depth.

41. The area for the proposed development is at the existing TPL power generation site at Kameli on the outskirts of Neiafu. The proposed site is connected to the municipal power supply and the extension of the battery storage capacity of the existing solar farm will further contribute to power stability and gradual reduction of power tariff on the whole island. Neiafu is the trading and administrative center in Vava'u, located beside the Port of Refuge, which is a deep-water harbor on the south coast of the island.

42. The population of Vava'u from the preliminary data of the 2016 Census is 13,740, made up of 7,559 males and 6,872 females. This has declined by nearly 8% since the 2011 Census. Neiafu is the second largest town in Tonga. The 2011 Census records a population of 5,774, with 2,893 males and 2,881 females. In 2016 this declined to a total population of 5,239, representing a reduction of approximately 9%.

43. There is a piped water supply, but dissatisfaction with water quality is common, as it has high calcium content affecting the taste. Many people rely on water tanks for their potable water supply. In the Community Development Plan for Neiafu¹⁵, inadequate water supply (including lack of or broken storage tanks, and no piped water to high areas) was listed as the number one priority for men, women and youth. Other critical issues include lack of waste services, poor sanitation, contaminated environment, poor road conditions and lack of street lights.

44. There is an airport in Vava'u, which now receives international flights from Fiji on a regular basis. The Vava'u Port also hosts smaller passenger cruise ships, providing opportunities in the handicraft and tourism sector. As a long-term host of yacht visitors and other tourists, Neiafu has an established infrastructure that includes restaurants, hotels, whale watching and diving businesses, and guided tour businesses. These economic opportunities combine with government and local business, as well as the more traditional activities of fishing, agriculture and handicrafts to create the economic backbone of Neiafu.

¹⁵ Ministry of Internal Affairs (2015): *Neiafu Community Development Plan*. Available at https://media.wix.com/ugd/6d6824_e0e9fb86f7ea4b33921c2013f1a0d1f2.pdf

2. 2 Ha'apai

2.2.1 'O'ua

45. 'O'ua is a low-lying atoll located to the southeast of Tungua in the Lulunga District. The island has the one village of 'O'ua, comprised of 28 households. There were 83 males and 61 women recorded in the 2011 census, with a total population of 144. Preliminary data from the 2016 census presents a decline in 'O'ua's population to 116 people. This is a decrease of 19.44%, reflecting the migration for greater economic and educational opportunities outside of 'O'ua.

46. Water storage is a critical issue in 'O'ua, particularly given Ha'apai's vulnerability to drought. In 2014 there were 65 rainwater storage tanks recorded in 'O'ua for 25 households¹⁶, as families have prioritized this household need. There is no clinic on the island; patients travel by boat, about 45 minutes trip, to the main island of Pangai to seek medical attention.

47. A seasonal primary income source for the island is sea cucumber harvesting, selling them to Chinese buyers. Harvesting around the island is a restricted; exclusive only to the people of 'O'ua. Also, a major economic activity in recent years has been the participation of people from 'O'ua in the Australian seasonal visa program, with approximately 30 people traveling to work in the fruit picking seasons and supplying significant financial resources to their families. This has been in addition to the more traditional livelihoods of handicrafts and fishing.

48. During community consultations, following are the concerns identified by the community:

- Limited capacity of the existing solar home system, with some of them broken
- Limited income source to pay monthly contributions

2.2.2 Tungua

49. Tungua is an island located to the southwest of Fofua Island in the Lulunga District in Ha'apai. The island is elevated at approximately 19 meters above sea level.

50. There are 43 households in Tungua, with 121 men and 111 women recorded as at the 2011 census. However, this total population of 232 has reduced to 187 people according to the preliminary data from the 2016 census. This represents a decline in population by 19.4%.

51. There is no running water supply on Tungua, or electricity, aside from the power provided by Solar Home Systems (SHS), which not all households have. Those without SHS use either kerosene for lighting and some with diesel-powered generators ('gensets') or cell powered LEDs. (Those households [about 12] chose not to have SHS due to the TOP200 installation fee initially charged as starting maintenance funds for the project.)

52. There is access to the TCC mobile network, although reception can be poor. There is no clinic on the island; patients travel by boat, about 30-45 minutes trip, to the main island of Pangai to seek medical attention.

53. The livelihoods in Tungua are predominantly fishing and handicrafts, with pandanus mat weaving an important source of income earned by women in the village. There are no community members who have traveled under the seasonal worker visas to Australia, but the Town Officer expressed that he is keen to explore this opportunity to boost income into the community.

¹⁶ Sustainable Livelihoods Alleviating the Poor (SLAP) Inc (2014): *Luluunga District Water Supply Report*. Available at https://www.worldpulse.com/sites/default/files/post/6610/34865/post_document/0b16de0dfc1f6f5fbb68a73b2ddf05d/lulunga_water_supply_edited.pdf

54. Critical issues of concerns from the community, as identified in the Tungua Community Development Plan, were collated from surveys of women, men and youth. The merged results of the five most critical issues (in order of priority) are:

- lack of water (with some storage tanks damaged),
- poor sanitation,
- limited access to electricity,
- coastal erosion and
- poor standard of kitchen facilities.

2.2.3 Kotu

55. Kotu Island is an island in Lulunga District, in the Ha'apai islands of Tonga. The island is elevated at approximately 18 meters above sea level.

56. There are 30 households in Kotu, with 65 men and 64 women in the 2016 Census, a decline of 27.5% from the 2011 Census.

57. There is no running water supply on Kotu, or electricity, aside from Solar Home Systems (SHS) for all households on the island. Kotu has an underground water supply, although water pumped from this freshwater lens is untreated and vulnerable to contamination.¹⁷ There is access to the TCC mobile network, although reception can be poor. There is no clinic on the island; patients travel by boat, about 45 minutes trip, to the main island of Pangai to seek medical attention.

58. The livelihoods in Kotu are predominantly fishing and handicrafts, with pandanus mat weaving an important source of income earned by women in the village. Kotu is known in Tonga for its good kava quality. Men produce powdered kava to sell to other islands and Tongatapu and are one of the main income sources for some families on the island. Also, the island is known for building local fishing boats selling them to other fishers within the Ha'apai group of islands.

59. There are no community members who have traveled under the seasonal worker visas to Australia, but the Town Officer expressed that he is keen to explore this opportunity to boost income into the community.

60. Critical issues of concerns from the community, as identified in the Kotu Community Development Plan, were collated from surveys of women, men and youth. The merged results of the five most critical issues (in order of priority) are:

- lack of water (with some storage tanks damaged),
- lack of navigational facility/safety equipment
- lack of flush toilet facilities
- lack/damaged solar power
- poor telecommunications and lack of sports equipment

2.2.4 Mo'unga'one

61. Mo'unga'one is an island in Lifuka District, in the Ha'apai islands of Tonga. The island has an elevation of 21 meters above sea level.

62. There are 15 households in Mo'unga'one, with 31 men and 32 women during the 2016 Census, a decline of 31.5% from the 2011 Census.

¹⁷ Sustainable Livelihoods Alleviating the Poor (SLAP) Inc (2014): *Luluunga District Water Supply Report*. Available https://www.worldpulse.com/sites/default/files/post/6610/34865/post_document/0b16de0dfc1f6f5fbb68a73b2ddf05d/lulunga_water_supply_edited.pdf

63. There is no running water supply on the island, and people rely on rainwater for drinking. There is no electricity, aside from the Solar Home Systems (SHS), where about a third is not working due partly to the damage by Cyclone Ian in 2014. The majority of households have switched back to kerosene and use dry cell powered LEDs since then (MEIDECC plans to restore SHS electricity by end of the year through Italian funding). Unlike other Ha'apai islands where there are at least freezers, washing machines and other appliances, Mo'unga'one, community did not have these. There is access to the TCC mobile network, although reception can be poor. Similar to the other island of Ha'apai, there is no clinic on the island; patients travel by boat, about 45 minutes trip, to the main island of Pangai to seek medical attention.

64. The livelihoods in Mo'unga'one are predominantly fishing and handicrafts, with pandanus mat weaving an important source of income earned by women in the village. There are no community members who have traveled under the seasonal worker visas to Australia, but people are keen to explore this opportunity to boost income into the community.

65. Concerns from the community brought up during consultations include:

- Limited capacity of the solar home systems with some them broken
- Limited income source to pay monthly contributions

3. 'Eua Island

66. 'Eua is within Tonga and is north 'Eua and east of Pangai. The island is elevated at approximately 112 meters above sea level.

67. There are 885 households in 'Eua, with 2,489 men and 2,461 women during the 2016 census. This represents a slight decline in population by 1.3%.

68. Being a larger island and closer to the capital, the capital of 'Eua have running water supply and rain water tanks. The island is connected to the main grid, mainly powered by diesel and recently supplemented by solar energy through the construction of a solar farm in November 2016 operated by the Tonga Power Ltd. There is access to the TCC and Digicel mobile networks on the town center (and an internet), although reception can be poor in the outlying areas. There is also an airport in 'Eua that could be reached by 7 minutes flight and served by a small 7-seater plane. A regular 3-hour ferry service from Tongatapu is also an alternative transport to get to the island.

69. The livelihoods in 'Eua are trading, agriculture, fishing, and tourism revolving around the increasingly popular whale watching destination following Vava'u from June to October.

4. Niuafo'ou Island

70. Niuafo'ou is an island located 574km north of Tongatapu island. Niua'fou is still an active volcano. The island ring encloses two lakes: the largest, Vai Lahi, is a crater lake 23 meters above sea level, 4 kilometers wide and 84 meters deep. The coastline is rocky and steep with only a few stony black sand beaches. The only landing place on the island is the end of a lava flow at Futu, in the west. All the villages are in the north and east.

71. Niuafo'ou is the most northerly island in the Kingdom of Tonga. It is a volcanic rim island of 15km. The island has a total population of 493 people with 264 men and 229 women (Census 2016), spread in eight small villages¹⁸.

72. Public places like the post office, telecommunications station, and airport are in Angahā in the north, while a high school is located in Mu'a. At least four primary schools are spread across the eight villages on the island. Air transport is limited to fortnightly flights, and

¹⁸ Comprised of villages of Esia, Kolofo'u, Sapa'ata, Mata'aho, Mu'a, Fata'ulua, Petani, and Tonga Mama'o,

government ships bring goods and passengers from the capital once a month. (The government ship reportedly only comes to the island once a year in the 1990s to pick up students studying in Vava'u or Tongatapu in January and bring them back in December to spend the Christmas holiday with family before going back to school again a month later.) There's no proper wharf on the island, with access only by small dingy and it is very dangerous in rough seas.

73. There is no electricity except for the Solar Home Systems providing power to individual households for about three bulbs and mobile phone charging. 169 solar home systems were installed in 2006 by NZAid. 40 solar home systems were rehabilitated (replacement of batteries and charge regulators). 129 solar home systems are still in poor condition¹⁹. There is no running water, and the main source is through collection of rainwater stored in water tanks.

74. All eight villages have some access to communication services through mobile phones. Power is limited to the home solar systems providing power to only light bulbs and some cellphone charging capacity. There are no freezers on the island thus items such as ice blocks and ice cream are only available once a month when the government ships arrive.

75. Fishing, weaving, and remittances are the most common source of income. Mats woven by local women island brings in the most income as they are well sought especially by overseas buyers bringing in thousands of Pa'angas to the families during school time and Christmas. They, however, require hard work and time thus women in each household work long hours to produce these woven mats and 'ta'ovaala' (traditional mat worn around the waist by both local and women).

C. Gender and Indigenous People

76. All private landowners are males except for one female who is temporarily holding the title for the land intended for her eldest son. Women interviewed indicated that the expected project impacts, including the ability to use home appliances and electronic tools to earn income, are mainly positive.

77. There are no Indigenous Persons (IP) who are considered as distinct and vulnerable. No one is marginalized due to their language, educational achievement, and skin color requiring protection from the government and the project thus do not trigger the IP Safeguards as defined by the ADB Safeguard Policy 2009.

¹⁹ ADB Outer Island Phase 2 Offgrid Site Visit Report, March 2016

IV. INFORMATION DISCLOSURE, CONSULTATION, AND PARTICIPATION

A. Stakeholders

78. There are three categories of stakeholders under this project: (i) government, (ii) private sector including business owners and land owners and (iii) the public including power users. The government stakeholders include: (i) national government, (ii) Ministry of Finance and National Planning (MFNP) (iii) Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC) (iv) Ministry of Ministry of Land, Survey and Natural Resources (MLSNR) (v) Ministry of Internal Affairs (MIA) (vi) Ministry of Commerce, Tourism and Labour (MCTL) (vii) Ministry of Infrastructure (MOI), and (viii) Tonga Power Ltd (TPL).

79. Under the local government, the local government including the Governor and Town Officers are the main stakeholders in the project.

80. Also, His Majesty and the Nobles owning allotments are also stakeholders in the project.

81. Individual land owners and the private sector (business owners) including the Chamber of Commerce are also considered as main stakeholders. Other stakeholders include civil society members including Tonga National Council of Women and Tonga National Center for Empowerment (TNCWE).

82. Lastly, the 13 communities around the project sites who expect to benefit from a more stable and affordable power supply provided by solar and wind energy and battery installation to grid connected system are also considered as key stakeholders.

B. CONSULTATION WITH DISPLACED PEOPLE AND STAKEHOLDERS

Consultations Held

83. The Team consulted with the major stakeholders during site visits from 28 March to 10 April 2017 on all project sites except Niufo'ou. Due to twice a month flights to the outer island, consultation will be conducted during detailed project design. However, a Team comprising of government and development partners including ADB and DFAT held consultations on the island in March 2016. They confirm the strong support by the community for the project. Although there is no separate minutes of meeting for these consultations, the Team's findings were discussed in the site report visit (Appendix D).

84. In total, at least 94 people, 42 women (45%), were consulted during consultations carried out by the Team from 28 March to 10 April 2017 in all project sites.

In Tongatapu, the Project consultations, in coordination with the Ministry of Internal Affairs, started with a meeting of 12 Town Officers in the project sites on 28 March 2017. In the Outer Islands, the Team consulted key stakeholders in Vava'u starting with the Governor on 28 March 2017 in Tongatapu. Another consultation followed this meeting through an MEIDECC-organized meeting on 29 March 2017, attended mostly by 39 school teachers and Vava'u local government officials.

85. This consultation was followed by a site visit and consultations with the four Ha'apai outer island communities of 'O'ua, Tungua, Kotu and Mo'unga'one from 3-6 April 2017.

86. In 'Eua, a site visit was carried out by the Project Team comprised of the social and environmental consultants with a TPL Officer on 1 April 2017. The Team consulted with the TPL manager and staff and made attempts to meet with the land owner.

87. In 'O'ua, 13 community representatives including the Town Officer, church leaders, women and youth representatives, attended the consultation organized by MEIDECC, on 4 April 2017. Also, a separate meeting/interview with the caretaker of the proposed site was held by the Project Team. In Tungua, 24 community representatives including the Town Officer, men, women, and youth representatives also attended the consultation on 5 April 2017. The Team also held a separate meeting with the land owner. 13 community representatives including the Town Officer, men, women, and youth attended the consultation in Kotu on 6 April 2017. A separate meeting/interview was also held with the caretaker of the proposed site. In Mo'ungaone, a similar site visit was also carried out, and interviews conducted with the Town Officer, women's and men's representatives on 15-16 April 2017.

C. SUMMARY OF CONSULTATION RESULTS

88. **APs:** Subject to confirmation of site locations, initial consultations in Tongatapu and outer islands indicated a willingness by most land owners to lease part of their land to the Project. In Tongatapu, during consultations held by TPL in 2014 (EIA preparation) and during the Aurecon Tonga Wind Generation Study 1 February 2015 (Feasibility Study), the communities were consulted and agreed to improve the stability of power supply and make power affordable by tapping into solar and wind renewable energy (see Appendix E).

89. In Tongatapu, concerns raised during 2014 and 2015 consultations by some respondents and those attending the consultations relates to the high cost of power tariff. However, during the initial consultations by the Safeguards Consultants with 12 Town Officers in Niutoua and surrounding areas in 29 March 2017, they have raised the question on when and how much will be the reduction in their power bill once the solar and the wind farms are operational.

90. In the outer islands of Ha'apai, land owners together with the whole community are also very keen to have a larger capacity power source to operate appliances and carpentry tools in the households in addition to three light bulbs in each household. Also, potential income from the land lease will provide much-needed income for the family. Moreover, project communities are also interested in making their power bills more affordable as a result of the government's investment in these renewable energy sources. No concerns were raised by the land owners (APs), or their representatives, during their meeting with the Project Team ('O'ua, Tungua, Kotu and Mo'unga'one). However, this will be further confirmed during detailed design.

91. **Women and Youth:** Women and youth were informed of the project scope during the Team's site visit. Initial consultation with women and youth was carried during this early design stage to ensure awareness and common understanding of the project concept. Overall, women participants, particularly in the outer islands, were vocal about the need to expand their power source and the need to maintain these facilities and pay a monthly fee. Concerns regarding the low capacity and the broken-down condition of the SHS were raised during the consultations in the Ha'apai outer islands. Some had also raised the ability to pay by the community of the current solar power tariff of TOP 13 monthly for maintenance ('O'ua and Tungua) and the limited capacity of the SHS to lighting bulbs only and no appliances as well as the broken-down state of some SHS in the community (Kotu).

92. **Government Representative:** The Team met with the Head of the Women's Department (and Acting CEO) under the Ministry of Internal Affairs about the project. She was supportive of expanding the solar power in the outer islands to mini-grids but also suggested to ensure that households could still keep the SHS to have an option to opt out from the mini-grid if they could not afford it. This request has been forwarded to MEIDECC and will be an input into the project design once project funding has been confirmed.

C. Disclosure of Resettlement Plan

93. TPL and MEIDECC will disclose the content of the draft RP particularly the entitlement and timetable during individual meetings with land owners or their representatives following confirmation of funding. The draft and final RP will also be disclosed on the ADB website upon submission by TPL and MEIDECC to ADB once project funding has been confirmed.

D. Arrangements for Consultation during Updating and Implementing RP

94. TPL and MEIDECC will arrange further consultations with affected land owners, or their official representatives once project funding is confirmed. Separate meetings will be conducted with affected land owners and other relevant stakeholders to ensure discussion of their potential concerns at that stage. TPL and MEIDECC will also present the scope of project works during these meetings. In the presence of each land owner, TPL and MEIDECC will ensure the boundaries of each affected allotment be correctly marked and recorded.

95. TPL and MEIDECC will also inform affected land owners about the policies and procedures regarding entitlements for improvements on the land to be leased by the project, if applicable. Procedures for grievance redress will also be discussed with the community and the affected land owners. Also, TPL and MEIDECC will also inform the land owners when and how compensation, if applicable, for affected assets including land, trees or crops will be compensated or replaced.

96. During RP implementation, the PMU (or relevant project implementation structure) will assign a safeguards specialist to:

- Ensure that all resettlement payments and procedures have been undertaken before construction commencing;
- Require women to be with their husband when receiving payment for compensation and assistance from the PMU;
- Involve women of affected households and vulnerable groups in the locality in addressing the unanticipated social and environmental impacts during Project implementation through the Project's Gender Action Plan (GAP).

VI. Grievance Redress Mechanisms

A. General Principles

97. The grievance redress process will be disseminated to all APs during project consultations, FGD's and the census of losses. It will be contained in an Information leaflet handed to each affected land owner during the census.

B. Grievance Coordination

98. The Grievance Focal Point (GFP) will be the Town Officer in each project site, who will coordinate and address all complaints and concerns arising from the project. The contact details will be provided to all APs.

99. The GFP will be assisted and supported by the PMU social and safeguards Unit or ESU (or its equivalent unit), who will maintain a register of complaints, keep track of their status and report to the Project Steering Committee (PSC) or its equivalent. They will regularly monitor complaints received, actions taken and the status of resolution. In the initial stages, complaint forms will be distributed to the GFP to facilitate recording of complaints. The ESU will enter these complaints into a customized database, such as that which has been developed by the project team in other ADB-funded projects in Tonga. By using an electronic database, reporting on complaints and actions will be systematic, and summaries from the database can be easily incorporated into monitoring reports.

C. Grievance Procedures

100. Affected persons will be informed that they can ask any questions or discuss grievances with their community leader (the District or Town Officer) by phone or in person, or to project staff visiting the area.

101. If these questions/grievances are not answered within one week, they will need to prepare their grievance/complaint in writing using the assistance of the GFP, nearby church or school. APs will also be informed that national and international project staff will also assist them with writing a grievance if necessary.

102. Although they can lodge complaints at any level at any time, the APs will be informed that the preferred process is to send or deliver the written grievance to the District GFP. He will have one week to deliver a resolution to the AP.

103. If a satisfactory answer cannot be provided, the AP can lodge the complaint with the Project Management Unit and receive a reply within seven days.

104. Affected Persons will have the right to take the dispute to the Minister of Lands, Survey and Natural Resources (MLSNR), who will also have one week to respond.

105. If the situation is not resolvable, or they do not accept the decision, the affected person(s) may have recourse to the land court (or other relevant courts). All court costs incurred by the AP (preparation and representation) will be paid for by the project unless it can be demonstrated the action was unreasonable and the outcome mirrors the answers provided by the Minister (MLSNR).

106. During construction/implementation, a grievance register will be held at each Project site office, maintained by the site manager and monitored by the Project safeguards team. All complaints arriving at a site office are to be entered in a Register (by, date, name, contact address and reason for the complaint) that is kept at site. A duplicate copy of the entry is given to the AP for their record at the time of registering the complaint. The Register will show who

was directed to deal with the complaint and the date when this was made together with the date when the AP was informed of the decision and how the decision was conveyed to the AP.

107. The Register is then signed off and dated by the person who is responsible for the decision. The Register is to be kept at the front desk of the site office and is a public document. The duplicate copy given to the AP will also show the procedure that will be followed in assessing the complaint, together with a statement affirming the rights of the AP to make a complaint. For anybody making a complaint no costs will be charged to the AP.

108. In the event that grievances cannot be resolved at the local level, TPL and MEIDECC will hold the compensation amounts in escrow or trust account. Compensation will be paid in full upon final resolution of the case in the courts or other forum, in accordance with the entitlements of the AP.

109. **Error! Reference source not found.**6 outlines a summary of the grievance resolution process.

Table 6. Grievance Resolution Process

Step	Process	Duration
1	Displaced Person (AP)/Affected Person (AP) takes grievance to the village chief/ then with Town Officer to the PMU/TPL/MEIDECC. This could be done after initial notification of grievance at Contractor's site office, or through the DSC (Resident Engineer)	Any time
2	PMU/TPL/MEIDECC reviews issue, and in consultation with contractor (if appropriate), then records a solution to the problem.	1 week
3	TPL/MEIDECC reports back to AP and gets clearance from complainant.	1 week
If unresolved		
4	AP take grievance to relevant government agency for resolution (Minister of MLSNR)	Decision within 1 week
5	Minister consults with other Ministers, TPL/MEIDECC and PMU in the resolution of complaints.	1 weeks
6	AP is informed by the Minister through PMU/TPL/MEIDECC	1 week
If unresolved or if at any stage and AP is not satisfied with progress		
AP can take the matter to appropriate court.		As per judicial system
The court hears the case and makes a final decision that is binding on all parties.		The court hears the case and makes a final decision that is binding on all parties.

V. LEGAL FRAMEWORK

A. Land Tenure in Tonga

110. To place Tongan land acquisition policy in context, it is important to understand its land tenure system. Under the Constitution of Tonga (1875), all land in the Kingdom belongs, in principle, to the Crown and is classified as (i) King's land, (ii) hereditary estates of members of the Royal Family, (iii) ancestral estates of Nobles, and (iv) Government land. The latter two categories are subdivided into allotments for the rest of the people of Tonga. In theory, every Tongan male over the age of 16 is entitled to a "tax allotment" of 3.3 hectares for agriculture, and a "town allotment" of between 758 m² and 1,618 m² for residential purposes. In practice, there is now little land available for distribution, particularly in the Nuku'alofa area.

111. When the registered owner of an allotment dies, the allotment is inherited by the eldest son or another male heir. Women can only lease land or hold land in trust for their male heirs. Sale of land is prohibited, but land may be leased. Leases cannot be sold, except by the land owner. Both leases and allotments may be used to secure bank loans. Given the fact that there is already limited land available, especially for the allocation of town lots to all eligible males, this future increase in demand will put further pressure on the existing system of land allocation.

B. Relevant Provisions for Involuntary Resettlement in Tonga

112. There are no laws or legislations in Tonga that specifically address matters related to involuntary resettlement. Rather, land acquisition is governed by the following laws:

- (i) Constitution of Tonga as revised 1988 and 1990
- (ii) Government Act 1988
- (iii) The Land Act 1988 revised edition (amended in 1991 & 1997)

113. Specifically, the lease process and procedures stated in this project are based under Land Lease Act 1988 revised edition. Detailed procedures are based on the Ministry of Land's internal policies and procedures that were formulated to ensure that all land transactions are in line with the governing Act.

114. Collectively, these regulations provide a fundamental basis for acquiring land for this Project and for compensating land owners and users according to the registered use of the land. The Land (Amendment) Act (No.2) 1991 provides for the compulsory grant of easements to the Crown. The easement option is open for TPL and MEIDECC's purposes. However, TPL and MEIDECC have indicated they intend to lease all required lands.

115. A third party verification is not a requirement by the MLSNR. MLSNR process lease applications when prescribed forms are completed, signed and delivered to the Ministry. Once the landholder signs the form, the assumption is that he understood the lease terms prior to signing. (However, under the ADB SPS 2009, a third party verification will be required under the project.)

116. In summary, the King or the Minister of Lands can compel any holder of land to grant an easement to the Crown. If land, crops or premises are taken, the Government shall pay fair value or an amount determined annually by Government. People have the right to relinquish land for public purposes for no compensation voluntarily. A brief description of legislation about compensation and the provision of land is provided in the later section of this report.

C. ADB's Policy on Involuntary Resettlement

117. The ADB policy on involuntary resettlement is detailed as "Safeguard 2" in the ADB Safeguard Policy Statement (SPS) 2009. It emphasizes ADB's efforts to assist developing member countries in pursuing sustainable and inclusive economic growth. Also, ADB is committed to ensuring the social and environmental sustainability of the projects it supports.

118. In this context, the goal of the safeguards is to promote the sustainability of project outcomes by protecting people from projects' potential adverse impacts.

119. The objectives of ADB's social safeguards are to:

- (i) avoid adverse impacts of projects on people, where possible;
- (ii) minimize, mitigate, and compensate for adverse project impacts on affected people when avoidance is not possible; and
- (iii) Help borrowers/clients to strengthen their safeguard systems and develop the capacity to manage social risks.

120. The key principles of ADB's Involuntary Resettlement Policy and procedures relevant to the LAR are detailed in the later section of this report.

D. Comparison of Tonga and ADB IR Laws, Regulations and Procedures

121. The main variation between Tonga laws/regulation and ADB Safeguards policy are outlined below. Any key differences have been resolved of ADB policy, particularly in areas where practices are less subject to independent oversight.

122. Comparison of the Tonga LAR laws with the ADB requirements on involuntary resettlement under the Safeguard Policy Statement indicates that key elements of the ADB Policy are present in Tonga laws - particularly those related to valuation of immovable property. The ADB's principle of avoidance or minimization of resettlement is also reflected in Tongan Legislation.

123. The key policy difference is about providing compensation to DPs without lease/title to land and structures and provision of proactive livelihood restoration and improvement activities for DPs. The DPs under this Project are land owners of affected allotments; however, this is not expected to be an issue as they are supportive of leasing their lands to the project.

Policy Gap Analysis between ADB SPS and Tonga Laws on Land Acquisition and Resettlement

ADB SPS Requirements on Involuntary Resettlement	Tonga Laws on Land Acquisition / Resettlement	Equivalence or Gaps between ADB SPS and Tonga Laws	Gap-Filling Measures
Avoid involuntary resettlement where possible. Minimize involuntary resettlement by exploring project and design alternatives.	Not specified in Tongan law.	Gap.	ADB Policy will be followed.
Enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-project levels. Improve the standards of living of the displaced poor and other vulnerable groups.	Tongan law does not provide for compensation to improve livelihoods or housing, or specify the type or timing of compensation payable for assets.	Gap.	ADB Policy will be followed.
Screen the project early on to identify past,	Not specified in Tongan law.	Gap.	ADB Policy will be followed.

ADB SPS Requirements on Involuntary Resettlement	Tonga Laws on Land Acquisition / Resettlement	Equivalence or Gaps between ADB SPS and Tonga Laws	Gap-Filling Measures
present, and future involuntary resettlement impacts and risks. Determine the scope of resettlement planning through a survey and/or census of displaced persons, including a gender analysis, specifically related to resettlement impacts and risks.			
Carry out meaningful consultations with APs, host communities, and concerned NGOs. Inform all displaced persons of their entitlements and resettlement options. Ensure their participation in planning, implementation, and monitoring and evaluation of resettlement programs. Pay particular attention to the needs of vulnerable groups, especially those below the poverty line, the landless, the elderly, women and children, and Indigenous Peoples, and those without legal title to land, and ensure their participation in consultations.	No specific policy in Tongan Law. However, customary practice is to consult with all affected and potentially affected people. APs are informed and consulted on the project, plans, and the actions to be taken particularly in respect to compensation entitlements and options. There are no specific provisions for vulnerable people in Tongan law. However such practice is embedded in the customs and traditions of Tonga and the land tenure system. No specific policy in Tongan Law distinguishing between rich and poor; all citizens are treated equally.	Tongan practice is in line with ADB policy.	Customary practice will be followed, with additional inclusion of specific ADB requirements.
Establish a grievance redress mechanism to receive and facilitate resolution of the affected persons' concerns. Support the social and cultural institutions of displaced persons and their host population. Where involuntary resettlement impacts and risks are highly complex and sensitive, compensation and resettlement decisions should be preceded by a social preparation phase.	Grievance redress mechanisms are approved by Tonga on a project-by-project basis. Given traditional and customary processes of communication, community structures and leadership, procedures are often well communicated. However, these same societal structures can allow for power differentials to occur.	Tongan practice is in line with ADB policy.	Tongan practice will be used for the project in compliance with ADB policy.
Improve, or at least restore, the livelihoods of all displaced persons through (i) land-based resettlement strategies when affected livelihoods are land based where possible or cash compensation at replacement value for land when the loss of land does not undermine livelihoods, (ii) prompt replacement of assets with access to assets of equal or higher value, (iii) prompt compensation at full replacement cost for	Land Act, Section 141 provides powers to the Minister of Lands in case of loss of land for compensation in the form of land and/or cash. Land Act, Section 141 (2) provides for the payment of cash compensation for loss of structures. Tongan Land law provides for compensation to legal land users for crop/tree losses at rates determined by the government and established by Ministry of Agriculture. In practice, compensation is generally paid within a timeframe prior to the action of the civil works.	Tongan policy complies with ADB policy.	None required.

ADB SPS Requirements on Involuntary Resettlement	Tonga Laws on Land Acquisition / Resettlement	Equivalence or Gaps between ADB SPS and Tonga Laws	Gap-Filling Measures
assets that cannot be restored, and (iv) additional revenues and services through benefit sharing schemes where possible.			
Provide physically and economically displaced persons with needed assistance, including the following: (i) if there is relocation, secured tenure to relocation land, better housing at resettlement sites with comparable access to employment and production opportunities, integration of resettled persons economically and socially into their host communities, and extension of project benefits to host communities; (ii) transitional support and development assistance, such as land development, credit facilities, training, or employment opportunities; and (iii) civic infrastructure and community services, as required.	No specific policy in Tongan Law. Tongan customs and traditions provide support for certain groups.	Tongan practice is in line with ADB policy.	Tongan practice will be used for the project in compliance with ADB policy.
Improve the standards of living of the displaced poor and other vulnerable groups, including women, to at least national minimum standards. In rural areas provide them with legal and affordable access to land and resources, and in urban areas provide them with appropriate income sources and legal and affordable access to adequate housing.	Tongan law does not provide for compensation to improve livelihoods or housing. Tongan customs and traditions provide support for certain groups. There is no law relating to this provision.	Gap.	ADB Policy will be followed.
Develop procedures in a transparent, consistent, and equitable manner if land acquisition is through negotiated settlement to ensure that those people who enter into negotiated settlements will maintain the same or better income and livelihood status.	Not specified in Tongan Law.	Gap.	ADB Policy will be followed.
Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets	Land users with no legal registration have no rights.	Gap.	ADB Policy will be followed.
Prepare a resettlement plan elaborating on	Not specified in Tongan Law.	Gap.	ADB Policy will be followed.

ADB SPS Requirements on Involuntary Resettlement	Tonga Laws on Land Acquisition / Resettlement	Equivalence or Gaps between ADB SPS and Tonga Laws	Gap-Filling Measures
displaced persons' entitlements, the income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget, and time-bound implementation schedule.			
Disclose a draft resettlement plan, including documentation of the consultation process in a timely manner, before project appraisal, in an accessible place and a form and language(s) understandable to affected persons and other stakeholders. Disclose the final resettlement plan and its updates to affected persons and other stakeholders.	Land Act, Section 142 requires the Minister of Lands to notify affected persons of Government's intention to acquire land at least 30 days prior to resumption. In practice, APs are informed and consulted on the project, plans, and the actions to be taken particularly in respect to compensation entitlements and options.	Tongan practice is in line with ADB policy.	Tongan practice will be used for the project in compliance with ADB policy.
Conceive and execute involuntary resettlement as part of a development project or program. Include the full costs of resettlement in the presentation of project's costs and benefits. For a project with significant involuntary resettlement impacts, consider implementing the involuntary resettlement component of the project as a stand-alone operation.	Note specified in Tongan Law.	Gap.	ADB Policy will be followed.
Pay compensation and provide other resettlement entitlements before physical or economic displacement. Implement the resettlement plan under close supervision throughout project implementation.	No specific policy in Tongan Law. In practice, each involuntary resettlement is assessed according to the development project. Compensation is generally paid within a timeframe prior to the action of the civil works.	Tongan practice is in line with ADB policy.	Tongan practice will be used for the project in compliance with ADB policy.
Monitor and assess resettlement outcomes, their impacts on the standards of living of displaced persons, and whether the objectives of the resettlement plan have been achieved by taking into account the baseline conditions and the results of resettlement monitoring. Disclose monitoring reports.	Not specified in Tongan Law.	Gap.	ADB Policy will be followed.

E. Principles and Policies of the Project

124. The following principles for the compensation of displaced people or families affected by the Project will be followed, and communicated to all stakeholders:

- (i) No displacement or civil works will take place prior to full compensation.
- (ii) The cut-off date for identifying affected lands, families and individuals will be identified at the conclusion of the detailed measurement survey (DMS). This date will be when Project scoping will take place and when any affected people within the proposed project site will be informed.
- (iii) Project planning will include avoidance of the need for structural acquisition and minimize agricultural land acquisition.
- (iv) Where there is a permanent acquisition of land, identification, compensation and assistance will be provided before any construction commencing.
- (v) All displaced persons will receive compensation for non-land assets, even if they are without a lease or formal recognition.
- (vi) All construction on agricultural land will be timed to avoid any impacts on the income and activities of adjoining land parcels. If impacts do occur, compensation will be provided to affected land and crops.
- (vii) Detailed seminars and consultations will be available for all affected people to keep them informed of the process. Representatives of affected households will be involved in valuation meetings following detailed design.
- (viii) A defined grievance procedure will be established. When a land owner or user does not agree with a decision regarding compensation or change of the land use (lease), it may not be exercised before the dispute is resolved judicially. Also, any person who feels that they are in any way worse off can take their grievance to the highest level, at the cost of the project.
- (ix) There are no APs who face significant impacts (>10% of their land being leased and physically displaced from housing).
- (x) Vulnerable groups, including female-headed households, the poor, disabled, or families with significant numbers of elderly or disabled members will receive additional support, assistance, and compensation to ensure that they are not severely affected.
- (xi) DPs may use and exercise their rights to a land plot and make necessary expenditures in compliance with its purpose after notification of acquisition for public needs until compensation is agreed. However, there will be no entitlement to additional compensation based on these improvements if made after the cut-off date.
- (xii) If a land plot becomes unviable due to acquisition, then the whole land plot will be compensated.

VI. ENTITLEMENTS, ASSISTANCE, AND BENEFITS

A. Entitlements to Compensation

125. All 5 private land owners as APs, are each eligible for compensation under the RP due to the proposed leasing of the land for construction of solar and wind farms. Also, the allotment belonging to His Majesty and the one allotments belonging to a Noble are also expected to be compensated under this Project. An allotment owned by the government (Niufou'ou) will not require compensation as it is government-owned (pending final confirmation). Its land ownership status will be confirmed during detailed design.

B. Calculation of Compensation

1. Land

126. Compensation for the land will be offered either as a lump sum, annual payment or any variation depending on the preference of the land owners and agreement during negotiation. The leases will be undertaken between registered allotment owners and TPL and MEIDECC as negotiated and approved by Cabinet. The compensation sum initially estimated in this RP is based on the recent land transaction between TPL and land owners of the JICA-funded wind farm at Niutoua approved by the Cabinet on 5 May 2017²⁰ of about T\$ 16,667 per acre calculated on 20 years as the maximum period TPL and MEIDECC could lease the land. The TPL and MEIDECC will pay 50% of the lease fee before Cabinet approval of the agreed amount, and the remaining amount will be paid after approval or as agreed with the land owners. The transaction costs and registration fees will be borne by the project.

127. A total of 24.4 hectares of land is required for the Project, from 5 individual land owners, a Noble, His Majesty, and the government land. Estimated total compensation costs during the three-year implementation period of about T\$1,331,000 (USD 549,492).

2. Food Gardens and Trees

128. Where a solar farm or a wind farm will be constructed, about four of the seven affected allotments is estimated to have crops and trees to compensate. This will be determined during detailed design. The Ministry of Agriculture & Fisheries (MAF) uses a standard compensation table determined by Government. This uses average yields and pre-determined prices. ADB guidelines indicate that prices should be determined in the market, and assume that the farmer sells at the peak price.

3. Other Compensation

130. The proposed sub-project is expected not to result in any other losses to structures, residences, or community assets (land or non-land). In instances where this happens, in the cases of crops and trees, the project will utilize the schedule of payments under the Ministry of Agriculture; in the cases of structures or residences, this will be determined jointly by both the PMU and the affected land owner based on replacement cost of the said structure, residence or community assets. This will, however, be confirmed during the detailed design.

²⁰ Cabinet decision numbers for the 6 different leases under the JICA-funded wind farm project:
 CD.450 - on Government land (Tu'ipulotu Afiulo's reverted land)
 CD.451 - Tau'alupe Oko's land
 CD.452 - Totoa Pohahau's land
 CD.453 - government land (Seini Liku's reverted land)
 CD.454 - government land (Neomai Kengike's reverted land - 8A)
 CD.455 - Latu Kengike's land

C. The Valuation Process

131. An initial asset valuation will be undertaken by the Project team. Before construction works commencing, the PMU ESU team (or its equivalent in PMU) will verify and certify the values using current Government and market rates. APs will be involved in the review and re-valuation. If the AP agrees with the valuation, then this will be used as the basis for negotiation. The detailed measurement survey will be used as the basis for calculation. If the AP disagrees with the valuation, as the current practice in land valuation in Tonga, the project will allow them to utilize an independent valuer that will be paid for by the Project.

D. Entitlements Matrix

Table outlines the relevant entitlements for the subproject.

Table 7: Entitlement Matrix			
Type of Loss	Specification	Affected People	Compensation Entitlements
Permanent loss of rural or townland	All land losses independent of impact severity	Land Owners	<ul style="list-style-type: none"> Long term sub-lease based on the market value of the affected land. Or, once-off compensation equivalent to the 20-year lease, depending on the land owner's preference. Provision of all legal and other expenses associated with the lease. Compensation will be paid for unaffected portions of plots if they become unviable or have their usage rights altered after impact occurs. Payment for the affected assets/improvements on the land to be leased.
Economic and physical displacement	All land and non-land losses	Vulnerable Groups	<ul style="list-style-type: none"> ADB SPS 2009 will be enforced in that assistance will be provided to vulnerable APs/DPs, if any identified, to ensure that living standards the same as, or wherever possible better than, pre-project levels.
Permanent loss of rural or town land	All land losses independent of impact severity	Land Owners	<ul style="list-style-type: none"> Once off compensation payment equivalent to the 20-year lease payment to registered land owner
Standing Crops	Crops affected	Land Users	<ul style="list-style-type: none"> Cash compensation equivalent to the gross income from the crop calculated at the maximum annual market value of the total annual produce from affected land or the formal government rate – whichever is greater
Trees	Trees affected	Land Users	<ul style="list-style-type: none"> Fruit Trees - The full cost of seedling, the cost of preparation of a garden and lost profit at annual income (using maximum annual market values) multiplied by the number of years of fruiting remaining or the regular government rate – whichever is greater. Timber Trees - The full cost of seedling, the cost of preparation of a garden and maximum market value of maximum timber production per tree (at full maturity) or the regular government rate – whichever is greater.

VII. RESETTLEMENT BUDGET AND FINANCING PLAN

B. Responsibilities

132. To ensure that sufficient funds are available for LAR tasks, the Ministry of Finance (via the PMU) will allocate 100% of the cost of compensation at replacement cost and other expected costs estimated in this RP plus contingencies before RP implementation. As the IA, the PMU (or its equivalent) will be responsible for timely allocating the funds to implement the RP. Allocations will be reviewed immediately before land acquisition.

B. Budget Summary

133. The estimated budget for LAR activities is shown in Table 8 below. It indicates a total budget of T\$1,226,500 (USD 525,888) to implement the RP.

Table 8: Estimated Land Acquisition and Compensation Costs

S.N.	Items	Cost (TOP)	Cost (USD)
A	Compensation		
1	Land lease for 61Ha (TOP 16,667 ²¹ per acre x 60.3)	1.05M	430,895
2	Assistance to vulnerable groups, if required	50,000	21,459
	Sub-Total (A)	1.10M	452,354
B	Implementation		
1	Land Survey (DMS) Tongatapu – TOP 20,000 'Eua – 5,000 Vava'u- 5,000 Ha'apai – 5,00 x4 = 20,000 Niuafo'ou- 10,000	60,000	25,725
2	Consultations	50,000	21,460
	Sub Total (B)	110,000	47,185
	A + B Total	1,210,000	499,539
	Contingency (10%)	121,000	49,953
	TOTAL USD	1,331,000	549,492

DMS = detailed measurement survey, Ha = hectare,
Source: Feasibility Study Consultants

²¹ Based on recent cost of acquiring Noutua site for TOP 50,000 for 3 acres each allotment

VIII. INSTITUTIONAL ARRANGEMENTS

The institutional arrangement discussed below will be confirmed during detailed design.

A. Project Management Unit

134. A Project Management Unit (or its equivalent) will have the overall responsibility for all aspects of the project implementation. The Project Management Unit (PMU) within comprised of TPL and MEIDECC representatives will be responsible for the day-to-day management of the Project including cross-agency coordination and via the Environment and Social Unit (ESU) for RP implementation and monitoring the compensation and disbursement.

135. An Environment and Social Unit (ESU) will be formed within the PMU to plan, implement, and coordinate land acquisition, resettlement

136. and environmental activities of loan effectiveness. The team will be staffed by a social safeguards officer²² and an environmental specialist officer. The Crown Law Office will provide overall guidance on Tonga's requirements and legal issues relating to land acquisition. Although PMU staff will be funded through counterpart funding, the operations of the Environment and Social Unit will be financed through a portion of the PMU support funds allocated through the grant for the duration of project implementation.

C. Design & Construct Contractor (DCC)

137. The Project will have its detailed design and construction contracted out. The PMU will be in charge of elaborating the design and construction documents for the project and tendering for the DCC. During design, the DCC will collaborate and work closely with the PMU/ Environment and Social Unit to:

- (i) look for measures and alternatives to avoid and minimize land acquisition and resettlement impacts;
- (ii) assemble all documents required for compensation;
- (iii) carry out topographic surveys of land to be leased or replacement lands if applicable;
- (iv) elaborate layouts for alternate land;
- (v) conduct land marking and pegging of the land assigned for temporary use and permanent occupation of acquired land.

D. District and/or Town Officer

138. District and/or Town Officer will play a facilitation role throughout implementation. They will work in close collaboration with the Environment and Social Unit and the contractor to:

- i) Become the Grievance Focal Point (GFP) for their respective site;
- ii) Assist consultation during implementation;
- iii) Identify land losses incurred by land owners and agricultural losses;
- iv) Together with DPs, be involved in the detailed monitoring survey and subsequent valuation discussions; and
- v) Assist with implementation of compensation payments.

139. Table 9 summarizes the roles of relevant institutions during the implementation of the RP.

²² Provided under the GAP

Table 9: Institutions Involved in Resettlement Implementation

Activities	Responsible Agency
A. Preparation and Updating of RP	
a. Project disclosure and public consultation	PMU ESU
b. Tendering and award of Design & Construct Contractors (DCC)	PMU
c. Survey and marking of subproject sites	PMU/DCC
d. Final Loss assessment	PMU ESU
e. Final Survey and establishment of market unit prices	PMU with Ministry Agriculture
f. Consultation and agreement of compensation	PMU ESU,
g. Update and approval of Final RP	ADB, DoEnv
h. Disclosure to the DPs and the public by IA and posting on ADB website	PMU & ADB
B. RP Implementation	
i. Approval and release of funds for compensation	EA and PMU
j. Verification of APs	PMU ESU
k. Monitoring	PMU ESU
l. Grievance and redress	District & Town Officer, PMU, Minister Lands
m. Preparation of leases	MLSNR
n. Payment of compensation	PMU
o. Acquisition of affected lands	MLSNR/ TPL & MEIDECC
p. Submit compliance documents to ADB	PMU and EA
q. Validate compliance of RP implementation	ADB and EA
C. Construction Stage	
r. Confirm "No Objection" for the beginning of civil works	ADB
s. Subproject construction	DCC

ADB = Asian Development Bank, DCC = Design & Construct Contractors, DoEnv = Department of Environment, ESU = Environment & Social Unit, MLSNR = Ministry of Lands, Survey & Natural Resources, MEIDECC, Ministry for Meteorology, Energy Information, Disaster Management, Environment, Climate Change and Communications, PMU = project management unit, TPL = Tonga Power Limited

IX. IMPLEMENTATION SCHEDULE

Responsibilities to Implement RP

A. Pre-Resettlement Activities

140. The PMU will undertake a detailed verification and update of the RP once the project details are finalized during detailed design. The changes to the RP will be verified with the PMU and require approval from the EA and ADB, with full disclosure before commencement of any LAR activities.

141. The final RP includes the full details of all land and resettlement arrangements, including verification by the APs. This requires approval by ADB.

142. The DCC in charge of finalizing the design and undertaking Project construction will assist the PMU to:

- (i) Update the RP based on the detailed measurement survey and inventory of losses and disclose to the project communities, and upload to government and ADB websites;
- (ii) Assemble all Cabinet-approved land lease documents;
- (iii) Carry out topographic surveys of the leased land and compensation;
- (iv) Prepare detailed layouts indicating the location of the worksites and the permanent infrastructures and the perimeter of the required areas; and
- (v) Conduct the land marking and the pegging of the lands assigned for temporary use and permanent occupation and determining actual size of lands to be leased by the project.

B. Resettlement Implementation Phase

143. Disbursement of cash will follow the approval of budgets for cash compensation. The Environment and Social Unit will inform the APs of the schedule of fund release. They will also advise the APs to produce acceptable legal documents about their identification for claiming the compensation. It is the main responsibility of the PMU to ensure that all the compensations and entitlements have been paid to and settled with APs before construction.

144. The APs will be paid and all RP compensation-related activities completed before signing a document signifying their satisfaction with and receipt of the compensation package. The PMU Environment and Social Unit will guide the PMU in preparing lease/ contract documents, including Ministry of Land supplied forms, to be used for the settlement of obligation in the lease of affected land.

145. All resettlement activities will be completed before clearing the construction sites. The PMU will initiate the following steps in releasing the cash compensation and entitlements to DPs:

- (i) The Environment and Social Unit (ESU) will advise the APs of the fund release schedules including required legal documents for their identification in claiming due compensation and entitlements.
- (ii) The ESU will facilitate for receipt of the resettlement compensation from the Ministry of Finance and disburse it directly to APs on presentation of identification.
- (iii) The ESU will require the APs to sign a document indicating the receipt of their compensation and entitlements.
- (iv) The ESU will arrange for new leases to be issued where relevant.
- (v) The ESU will require the APs to sign a document indicating completion of their LAR activities, stating that they have no further claims.
- (vi) This will be summarized by the PMU and forwarded to ADB as part of no-objections for the commencement of construction.

146. A compensation completion report, cleared by ADB, will signal the beginning of civil works. An updated RP is required prior to the start of any compensation.

147. The implementation schedule below outlines the sequence of activities. Some of these steps will overlap in their timing, and some will be repeated throughout the project schedule.

Table 10: Implementation Schedule for Each Proposed Sites

S.N.	Activities	Estimated Time	In-Charge
1	Confirmation of land requirement and initial identification of land owner through Town Officer confirmation	16 Weeks (March-June 2017)	TPL and MEIDECC/ Consultants/PMU
2	<i>Note: If unregistered land or land owner not identified, the Ministry of Lands, Survey and Natural Resources (MLSNR), to conduct a land survey upon the request of project proponent.</i>	1-2 Weeks	
3	Contact land owner (through the Town Officer)	3 days	TPL and MEIDECC/ Consultants/PMU
4	Meet with land owner to confirm initial agreement to lease the land	1 week	As above
5	Verify land ownership status, government land valuation, and market valuation	2 weeks	Ministry of Lands Private Valuer
6	Agree proposed compensation amount within TPL and MEIDECC before negotiation with land owner	1 week	TPL/ MEIDECC Committee
7	Organize follow-up meeting with land owner, or representative, to negotiate price	2 weeks	TPL/ MEIDECC Consultants/PMU
8	Allow time for land owner to consult with family and own land valuer	1 week	Land owner
9	Prepare government lease form and compensation agreement form	1 week	Ministry of Lands
10	Facilitate signing and payment of lease form and compensation agreement (50% payment or as per agreement) with land owner(s) with <u>third party verification (TPV)</u>	1 day	TPL/ MEIDECC Consultants/PMU
11	Compile forms and return to MLSNR for Minister's endorsement to get to Cabinet approval	1 week	TPL/ MEIDECC Consultants/PMU
12	Submit for Cabinet approval	1-2 weeks	MLSNR
13	Payment (final 50% or as per agreement with land owners)	1 day	TPL/ MEIDECC Consultants/PMU
14	Collect Deed of Lease from MLSNR	One week (if priority)	TPL/ MEIDECC Consultants/PMU
15	Final land survey and submission to MLNSR for filing	1 week	TPL/ MEIDECC MLSNR
16	Proponent submits the Deed of Lease and compensation completion report to ADB and who else?	1 week	TPL/ MEIDECC Consultants/PMU

Table 10: Implementation Schedule for Each Proposed Sites

S.N.	Activities	Estimated Time	In-Charge
	Estimate Time Frame	7 Months	
17	Commencement of civil works		

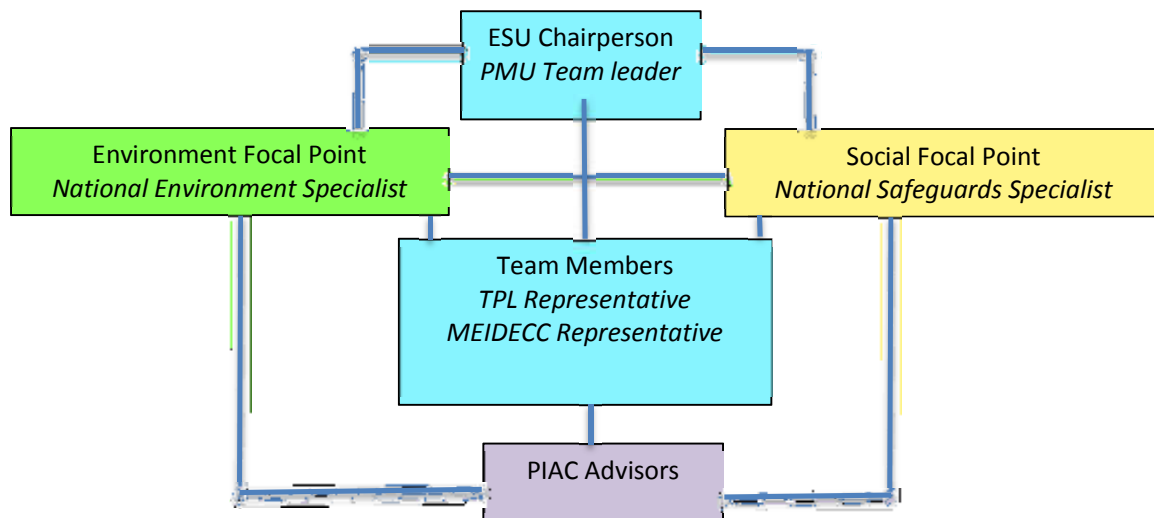
X. MONITORING AND REPORTING

148. The primary objective of monitoring is to identify as early as possible the activities achieved and the cause(s) of constraints so that the arrangements in the RP implementation can be adjusted. Also, to get Affected Person's feedback on the RP implementation and corrective actions, if required. Monitoring is essential because RP implementation is often the critical path for any project where civil works are involved, due to issues of land acquisition, compensation, and resettlement that may cause a delay in civil works. The early identification of the causes of delay will enable the PMU (with support from the PIA consultants), to prepare the mitigating measures during RP implementation.

149. The PMU will establish a safeguards team; the Environment Social Unit (ESU). The ESU will comprise of representatives from the Project Implementation Assistance Consultants (PIAC), along with representatives from TPL and MEIDECC. All LAR tasks will be monitored internally, and progress reported to the government and ADB. Monitoring will be carried out by the PMU Environment and Social Unit, with the assistance of the safeguard specialist(s) and the District/Town officer. Process indicators will relate to implementation outputs and deliverables. All data collected will be disaggregated by gender. These will be collected directly from the field and will be reported monthly to the PMU to assess the RP implementation progress and adjust the work plan if necessary. These reports will be consolidated in the supervision reports for ADB and submitted semi-annually.

150. Upon the completion of civil works, the PMU will prepare a post-RP implementation evaluation report that will assess both the permanent land acquisition and other impacts of the Project focusing on the conditions of APs especially those who were identified as vulnerable.

187. Figure 7 provides a proposed structure for the ESU.





*Pasa'oku fakapapa'e 'e he pua T he naha'u 'e o nga fa'ahia ki hemi 'oku pau ke toe fakasohani' 'e e totongi' fii 'oku' atona
And it is agreed by and between the parties hereto that the mte payable under the conditions of this lease shall*

*ke fai T he ngahi na'au'ue' 'he fafofio ki ai 'e o nga fa'ahia T he tot' 'e ta'u 'e vana takikina mei he lako na'e fai ai ena
be subject to revision by mutual agreement between the parties at the termination of each five years from the date*

*Pasa' i kapena he' tiai ke lota' auha 'e o nga fa'ahia 'oku pau ke fotota'u 'e e totongi' 'e he Kapine'i pa'a ki 'an ha'ufakalo' na
hereof and if the parties shall fail to agree the rate shall be determined by Arbitration and any such revision*

shall be entered upon their oath and duly authenticated. (Added by No. 16 of 1952).

[illegible]

08/20/2014
 09/01/2014

Tongva Power Limited
and
of
KATONGA
Wang Wang Keng
The power of
of the other part.

[illegible]

It is recited in this Deed and the performance of the covenants in this Deed by the Lessee, his heirs and assigns.

agreed to, no discussion of the proposed plan was held. It is our knowledge that the plan is, in fact, a representation, for the purpose of the plan, to the public and the public.

all the place of land situated at Sotofos with area reg of 4,946ha and being
Lot 1 on survey office plan TR/91-232.

Commencing on boundary pillar T2831 thence run successively on the following bearings and distances, 41°18'30" for 141.71 meters to BP T2889, 120°34'40"

30° for 153.37metres to BP 71996, 312°16'20" for 176.80metres to BP 13463, 312°27'00" for 262.16metres to the point of commencement.

It is hereby certified that the foregoing is a true and correct copy of the original as the same appears in the records of the Department of the Interior, Bureau of Land Management, in accordance with the Act of Congress of March 3, 1909, chapter 109, section 2202, entitled "An Act to provide for the disposal of the public lands in the State of Nevada."

Wahpeton and Wah (1888). For the first time the two Anishinabe bands, Wahpeton and Wah (1888). And the Lemons, his heirs, and representatives, said that the name of land described in the

(Arise, O Lord, and Scatter Thine Enemies)
 Dead Men

maofo me hongofulu me ono
two thousand and sixteenth

1846 The Year of Our Lord two thousand and sixty sixth

For this purpose at 4 An said hotel he has been spoken to by the manager of the hotel and the latter has offered him a room and a representative, but he will pay the

[illegible]

in each and every year to the Least or her successor because of the Least. And will make
among his The like, his followers will see him at a word of his his future like last he's in it, no more

The first payment of the price on the execution of this Deed. And the Lessee for himself, his heirs and assigns, his executors, administrators and assigns, shall and lawfully may, at any time or times, from and after the date hereof, pay unto the lessor, his heirs and assigns, the sum of one hundred and fifty dollars per annum, in and by the following manner, to-wit:

Fale Ales no e Pale anga 'o kange ko e ngana lae 'ola kae ki he totona 'o no e ngana 'e e ngana' Aale, se e ngana' lae ko

... e nganihi / mātaitaiti kōwhiri i te fohira i te he tūmāre Fale Aiga me e Pakitanga / Teo he e Laitika

o e fashere n'gana, na'e h'ono ngaaht' na'no e ha'a (shagishe) he' h'isi se sa' u'ha' re e h'i pe' shagil' h'i, 'e e' h'i' ni' a

any bill of a Representative's house over a vote in a debate.

This message, in fullstop, is the last sentence, and the word "and" is not a fullstop. The word "and" is not a fullstop.

Buyer. An "Buyer" is any individual, partnership, firm, corporation or other legal entity that acquires, or is to acquire, a vehicle subject to the terms of this contract. The "Buyer" shall be the person or entity that signs the contract and provides the payment information.

any purpose other than that upon which application and approval have hitherto been made, or (c) receive

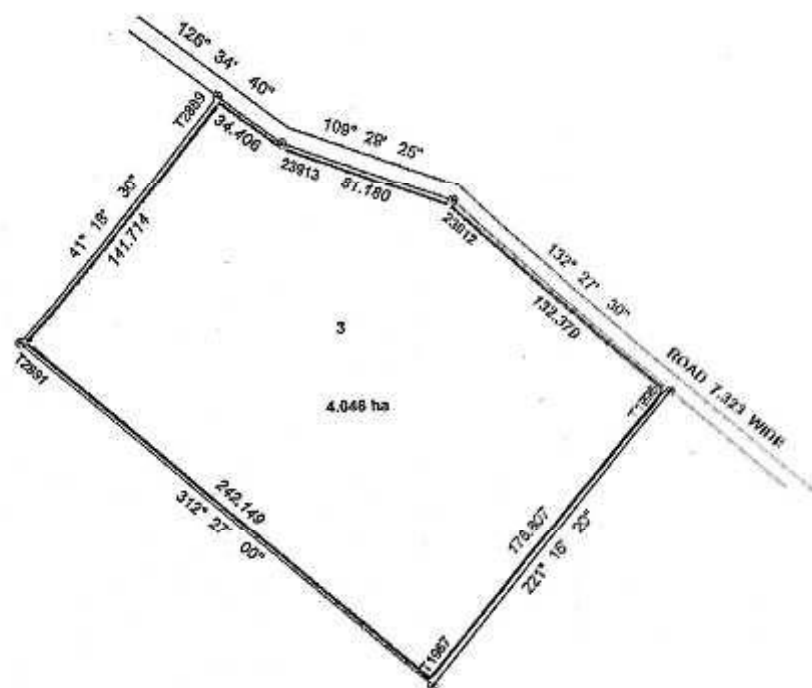
and no have tell pe (i) tell to arrange pe to forbids intent like that to give pe with to establish to a establish money or other form of payment from any person or persons by addition to or instead of

has taken you 7 hrs,
as specified herein.

*If any of the above conditions is not complied with by the kesser, his heir or representative, then Chhiser may at its discretion

¹ "Sublinguosa fere 'a e dūt' 'ha loco dī cī' e Rāpīentī."
concordare dīcī deus."

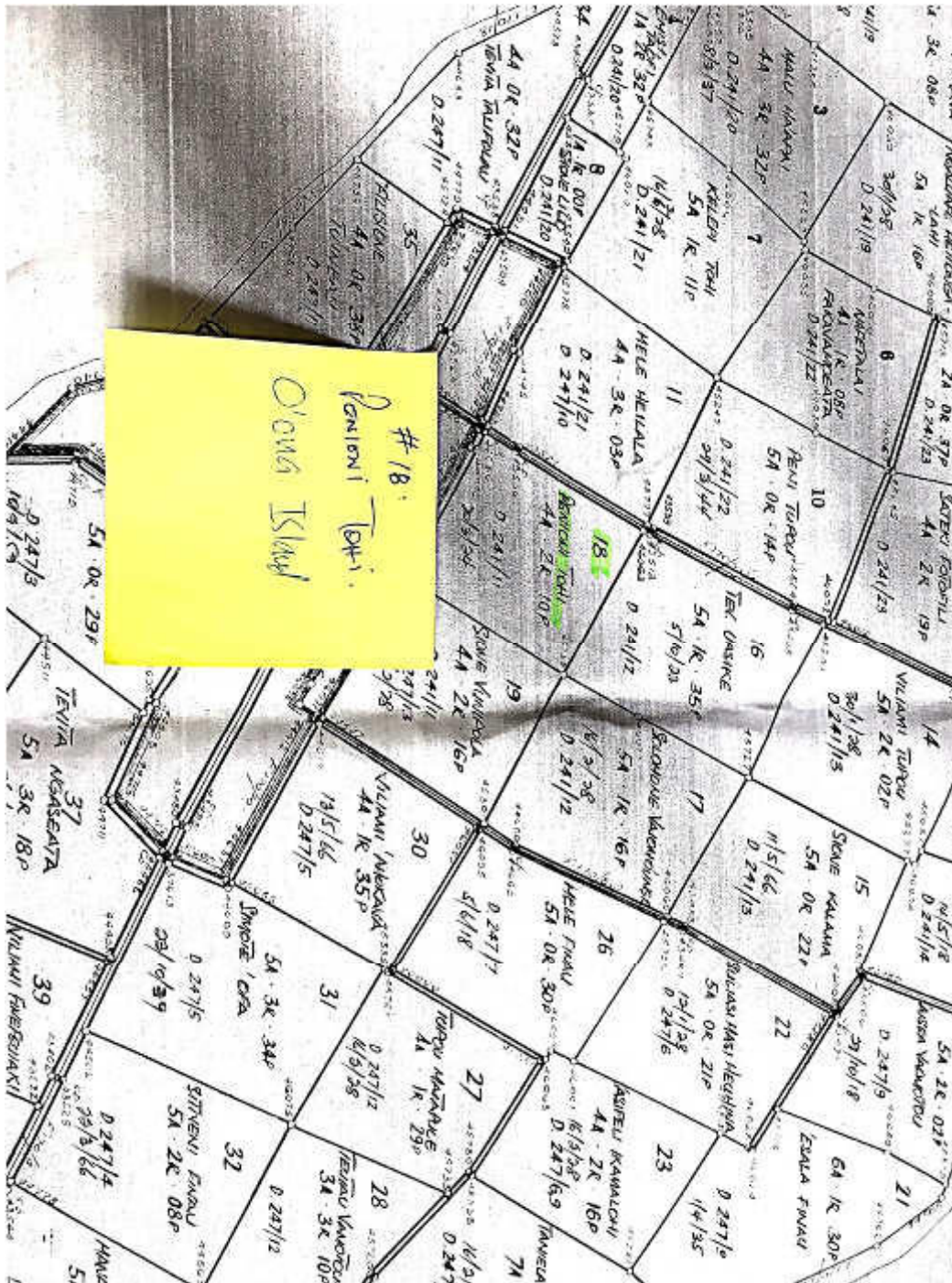
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End Notes 26.10.16.

APPENDIX B – LAND TITLES FOR PROPOSED SITES (FAHEFA, MATAFONU, NIUTOA, 'EUA)



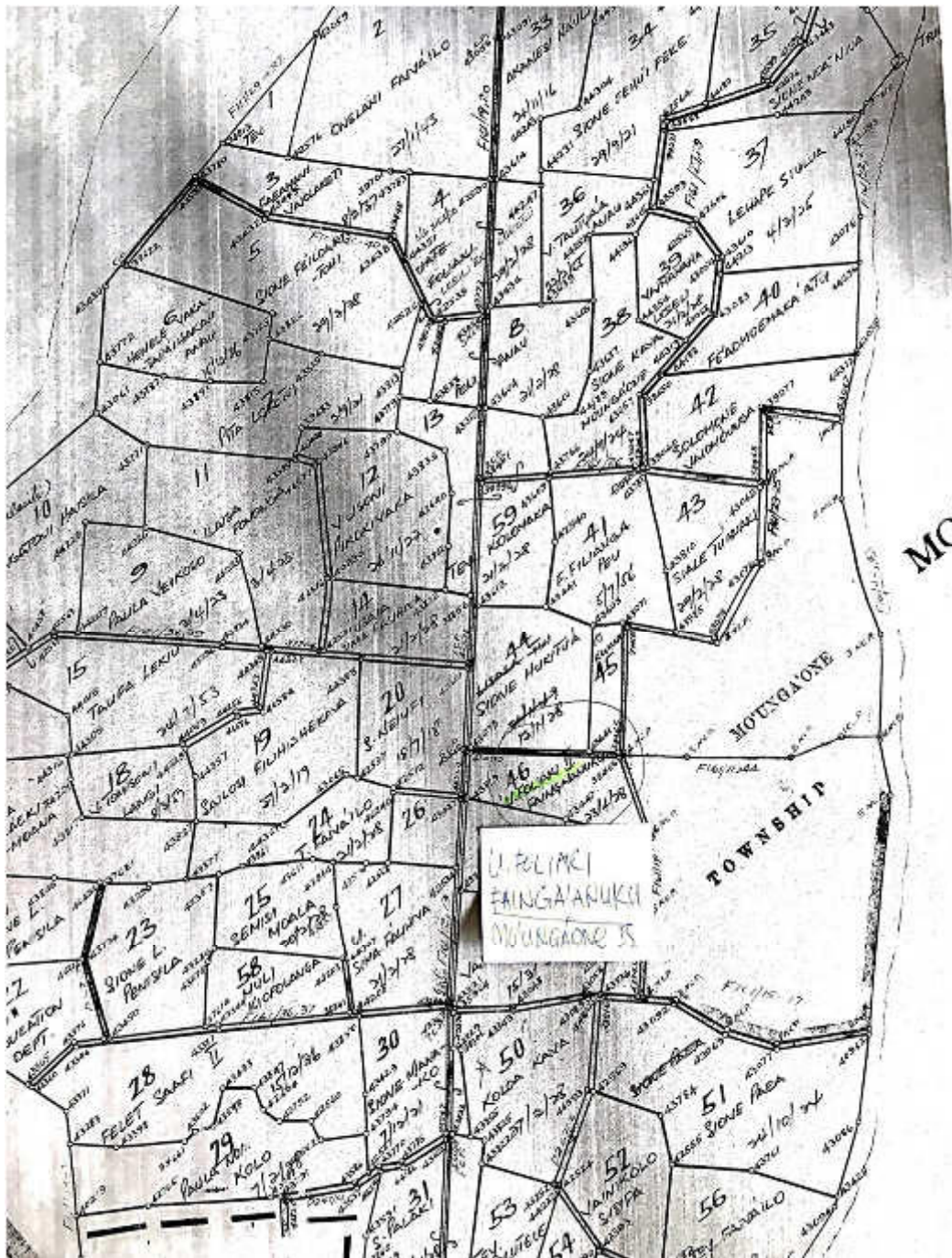
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a e 3ac... pae 'oku 84
we pae tanga tele'api
'eni a potaleki kota



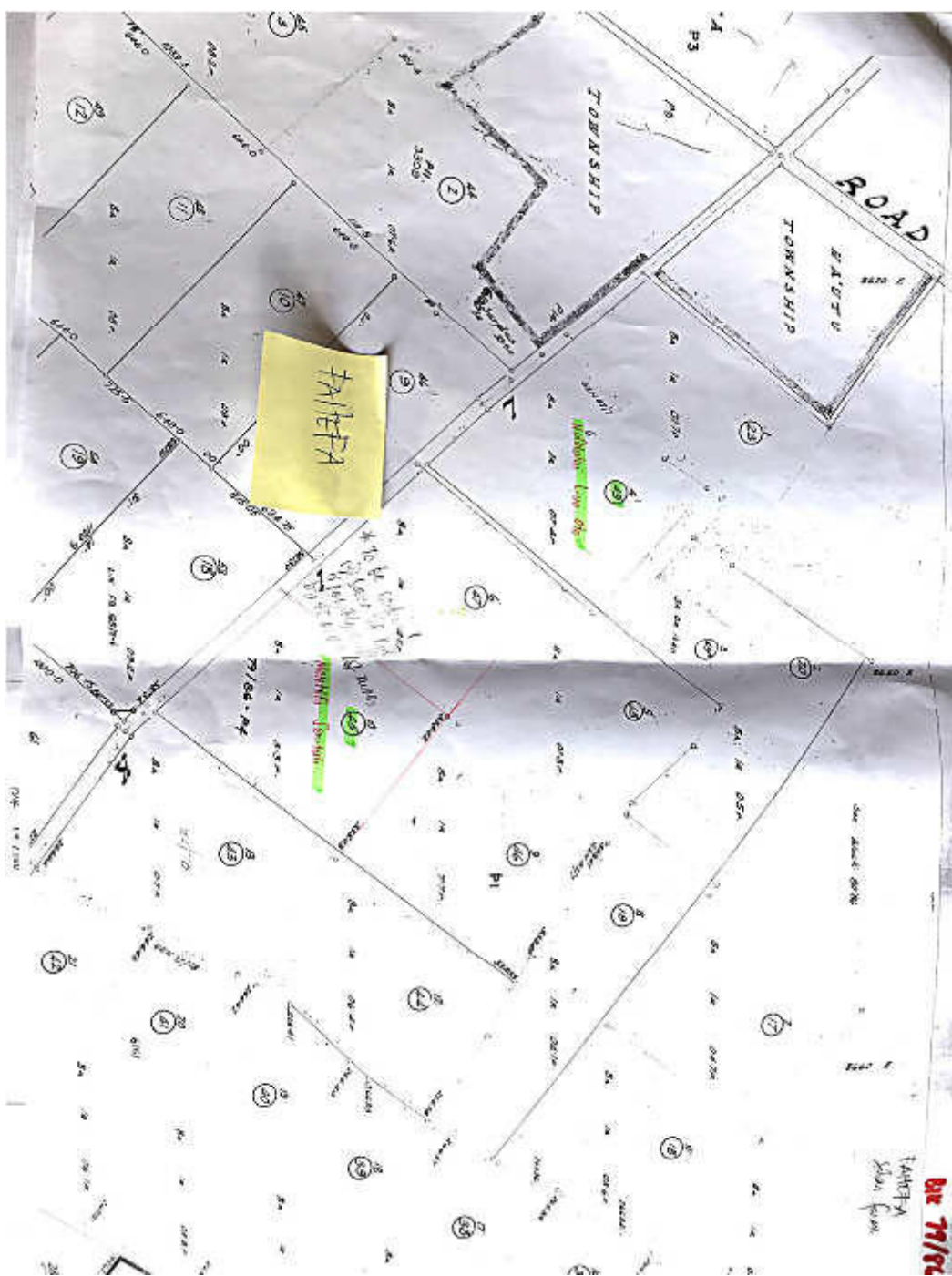
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SIMONE ILANGANA

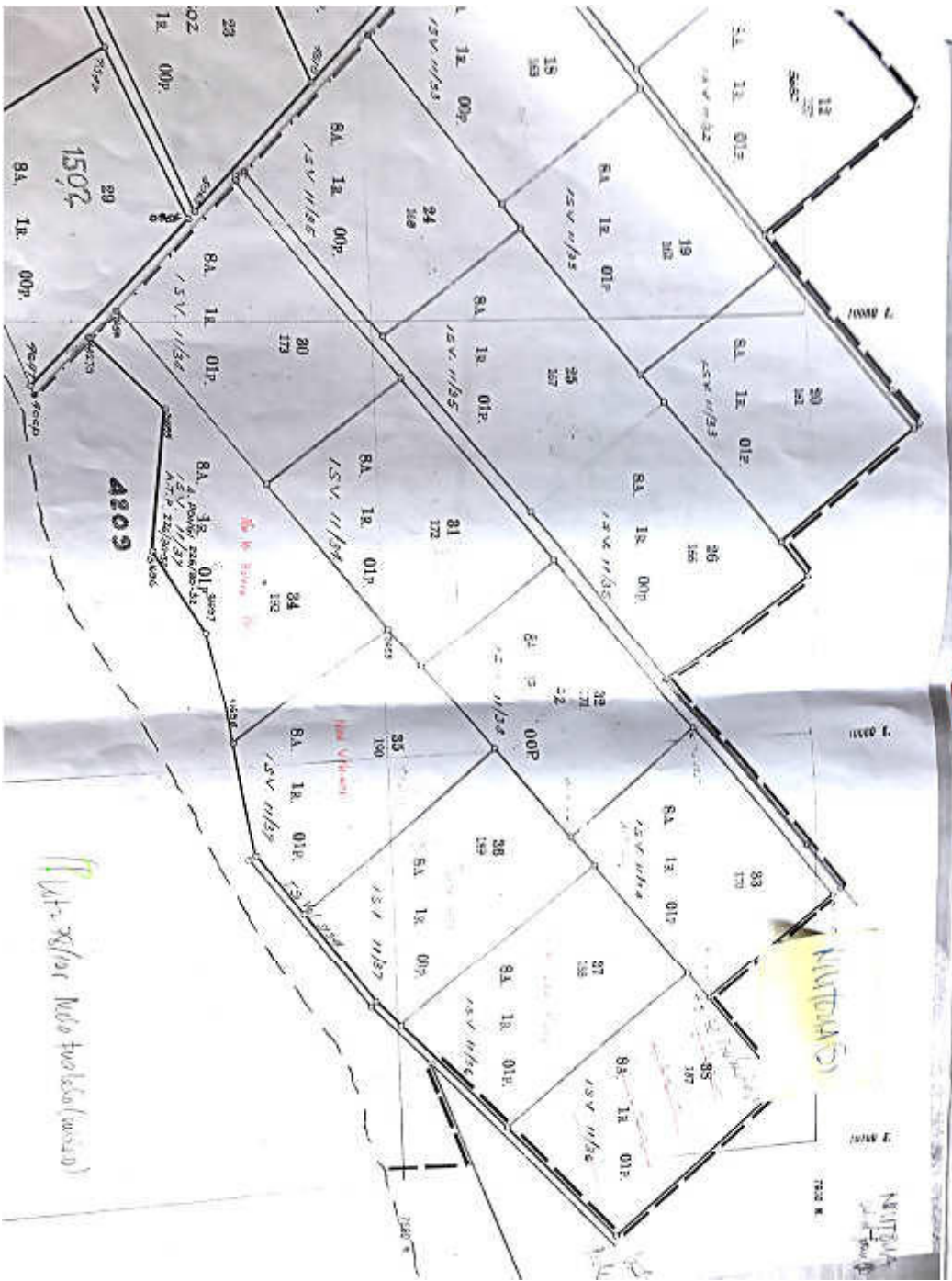
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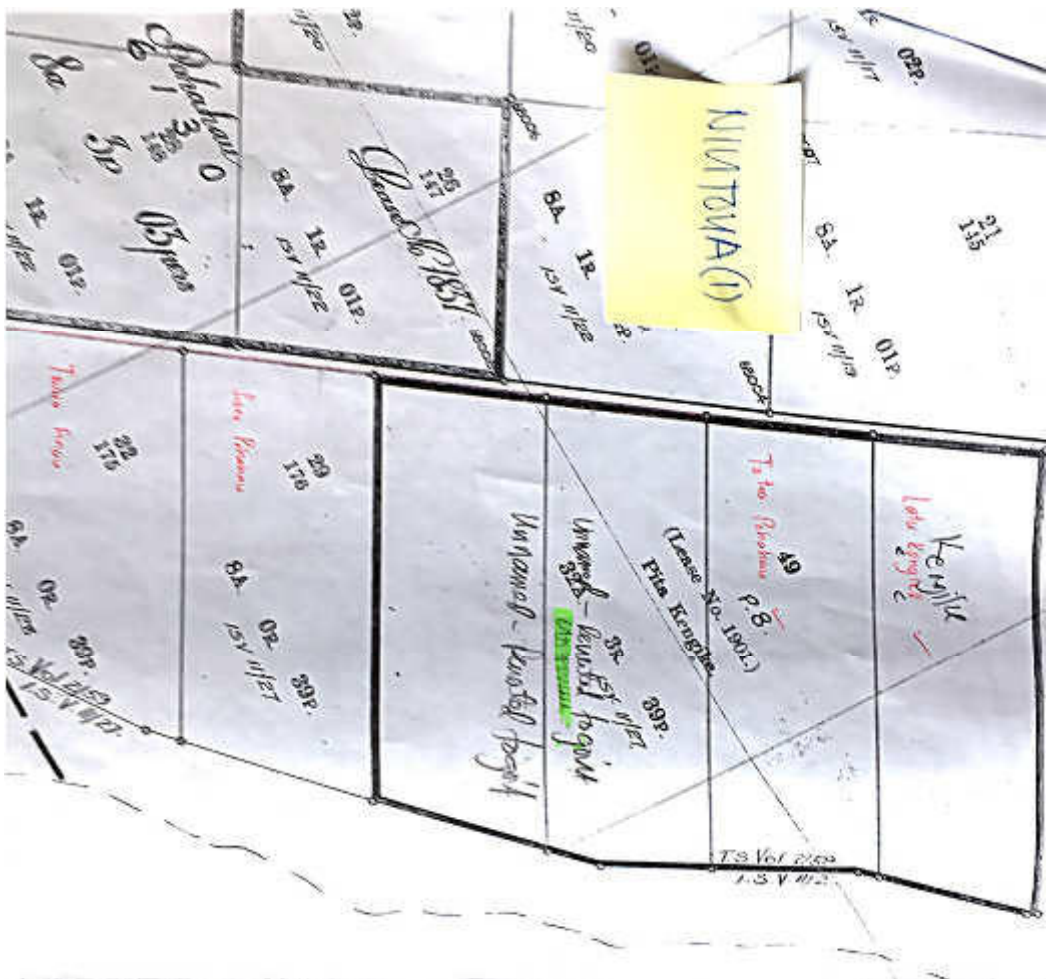
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APPENDIX C – ATTENDANCE LIST
**List of People Met
March- April 2017**

Name	Designation	Organization/ Village	Discussed	Contact Details
Tongatapu, 28 March 2017, Tuesday				
1. Setitaia Pasivaka Chen	General Manager, Operations	Tonga Power Ltd	Scope of works for each TPL site; guided site visits for solar sites	schen@tongapower.to
2. Simon Wilson	Major Projects Manager	Tonga Power Ltd	Scope of works for each TPL site	swilson@tongapower.to
3. Murray Sheerin	Power Generation Manager	Tonga Power Ltd	Operations of Popua PV	msheerin@tongapower.to
4. Telefoni Laume	Town Officer	Fua'amotu	Group meeting. Introduced the renewable energy project, their concerns, and recommendations relevant to the project. Main question asked of the team was when is their power bill will be reduced? TPL replied that the solar is helping stabilise the power supply and reducing power cost due to solar power generation is still minimal.	77-16276
5. Paluio Laume	Town Officer	Niutoua		877 3361
6. Moala Aniseko	Town Officer	Nukunuku		77-19320
7. Samuela Kotu	Town Officer	Fo'ui		8745747
8. Timote Eteak'i	Town Officer	Houma		
9. Usaia Fifita	Town Officer	Tofoa		77-16752
10. Malolo Tupou	Town Officer	Puke		77-66344
11. ?	Town Officer			
12. ?	Town Officer			
13.	Governor of Vava'u		Recommended His Majesty's land in front of the current solar farm for the storage site instead of the other site with a number of small landholders.	
Vava'u Thursday, 29 March				
14. Lucy Fa'nunu	Officer-in-Charge	MEIDECC	Introduced the RE Team to the workshop organized by MEIDECC participants	
15. Mele Finau	Environment Offic	MEIDECC	Interviewed	finaumele@gmail.com
16. Pipena Liu	Teacher at Tafisi	Government Primary School	Interviewed	
17. Siunipa Tiepa'aua	Teacher at Taliha		Interviewed	
Note: See separate attendance list for Vavau' meeting organized by MEIDECC for the REP Team				
E'ua				
Sione Taulaki	Operations Manager	TPL	Interviewed	
Villiams Ongosia	Project Manager	Outer Island Renewable Energy Project (OIREP) Phase 3	Interviewed and joined the site visit	vongosia@tongapower.to

COMMUNITY CONSULTATION – VAVA’U ISLAND

Attendance List

Thursday, 30th March 2017

No.	Villages/Schools/Organisation	Names	Phone No.
1	GPS Tu’anuku	Tevita.S.Kiteau	7574346
2	GPS Tu’anekevile	Sione Vea	7746886
3	GPS Tu’anekevile	Mele Fa’anunu	8513815
4	GPS Tu’anekevile		6478996
5	GPS Feletoa	Kalesita Fangupo	8899385
6	GPS Makave	Sione ‘Alatini	7517507
7	GPS Toulā	‘Atu ‘Ulungamanu	8886977
8	GPS Neiafu	Taiana Tu’ipulotu	7709393
9	GPS ‘Utungake	Tevita Toli	8777547
10	MET Office	Taniela Vaha’i	8837834
11	GPS ‘Utungake	Alex Burgos	8782300
12	GPS Tu’anuku	Vanesa Kind	8708716
13	GPS Holonga	Filimone ‘Anitoni	8417146
14	GPS Tu’anuku	Tevita Latu	8474115
15	Falaleu	Simoneti Toko (Town Officer)	8867976
16	Makave	Sosefo Niukapu (Town Officer)	7710005
17	GPS Nga’unoho	Taniela Ikamanu	8474769
18	GPS Makave	Peni Sinipata	874-2758
19	GPS Tefisi	Fine Sinipata	882-4966
20	GPS Tefisi	Jacqueline Wexel	879-2878
21	GPS Tefisi	Pipiena Liu	8421063
22	GPS Leimatu’a	Mafi.O.Latu	77334
23	GPS Leimatu’a	Mele.L.Sekeni	870-8695
24	Mizbah High School (Makave)	Alebina Mikaele	770096
25	‘Uiha & Sons	Mo’ungamaka	70-910
26	GPS Neiafu	Fipe Latu	70-078
27	GPS Liviela (Neiafu)	Nanise Finau	70-079
28	GPS Toulā	Soane Lavakei’aho	8625128
29	Chanel College	‘Atomalo Kaufusi	777-2408
30	Fungamisi	Nikola Sesau (Town Officer)	842-8649
31	GPS Ha’alaufuli	‘Ilisapeti Likiliki	8420223
32	GPS Holonga	Fine Ikatonga	7774374
33	GPS Longomapu	Sione Lavemai	8323203
34	Neiafu	Vava Fifita (Town Officer)	7701640/8876124
35	GPS Feletoa	‘Aisea Paongo	8789099
36	Tailulu College	Talanoa Tu’ipulotu	70432/8416193
37	St.P.Chanel College	Sione Sosefo Fitu Ma’ilangi	7558075
38	GPS Nga’unoho	Sunipa Tapa’ava	8469416
39	V.E.P.A	Lisa Fanua	7517184

COMMUNITY CONSULTATION – KOTU ISLAND

Attendance List

Tuesday, 6th April 2017

No.	Name	Position	Organisation	Phone No.
1	Siueti Kaifoto		Siulolo Vao	731-9078
2	Kaneisini 'Ilangana			776-2295
3	'Ana Malau Taufu			77-4944
4	Salote Taufu			73-13623
5	Toekava Pule'anga			774-4266
6	Tupou Mafi			731-8492
7	'Ana Fisi			774-8166
8	Mele 'Ilangana			
9	Langi Koloa			773-7592
10	Fapiola Mafi			770-6040
11	'Atalia Matangi			
12	Saane Koloa			751-9856
13	Heamasi Koloa	Town Officer		773-7592

COMMUNITY CONSULTATION – Mo'ungaone ISLAND

Attendance List

15-16 April 2017

No.	Name	Position	Organisation	Phone No.
1	Salesi Muli (Male)	Town Officer		7749949
2	Sione Fifita (Male)			7319781 or 8441218
3	Mele (Female)			No mobile
4	Fina (Female)			No mobile

COMMUNITY CONSULTATION

Tuesday 4th April 2017

'O'ua Island

Name	Male or Female	ORGANISATION	DESIGNATION	CONTACT NUMBER
'Osai Heitonga	M		Care Taker of Site	7268695
'Ofa Latu	F		Women Committe	7707946
Vai Tau	F			7769274
Moala Vainga	F			7268972
'Elenoa Latu	F			7792202
Lavinia Kolopeakua	F			7708383
Meleane Vea Mafua	F			731792
Talafungani Heitonga	F			7268687
Pouanga Taualupe	M			
Sione Fe'ao	M		Pastor Church of Tonga	7713949
Manase Tualau	M		Town Officer	7268654
Taniela Tualau	M			
Filimone Mahe	M		Pastor Church of Tonga	
Tevita Sikalu	M	Town Officer		Tevita Sikalu
'Isileli Vaikimo'unga	M			'Isileli Vaikimo'unga
Vahanoa Laulotu	M			Vahanoa Laulotu
Seini Lasitani	F			Seini Lasitani
'Ana 'Aiveni 'Ainu'u	F			'Ana 'Aiveni 'Ainu'u
Melelose Foukimoana	F			Melelose Foukimoana
Sivani Tungua Tau	F			Sivani Tungua Tau
Mele Talilotu Finau	F			Mele Talilotu Finau
Fololeni Feimoefiafi	F			Fololeni Feimoefiafi
Finau Tuni Tau	F			Finau Tuni Tau
'Ofa Folau	F			'Ofa Folau

COMMUNITY CONSULTATION

Wednesday 5 April 2017

Tungua Island

Name	Male or Female	ORGANISATION	Phone Number
Siaosi Tuai	M		
Sunia Tu'ipulotu	M	Reverend	7315991
Vaiki Vaiomo'unga	M		
F. Maka	M		
Levuka Lafitani	M		
Sione Pule	M		
Uatesoni Lasitani	M		
'Unaloto Vaiomo'unga	M		
Lei Lasitani	M		

APPENDIX D- SURVEY RESULTS AND MINUTES OF MEETINGS

Excerpts from survey results from *Tonga Power Limited Proposed Wind Farm Environmental Impact Assessment, July 2014, pages 55-56:*

6.0 Public Consultation

A sample survey of the households of Niutoua, Haveluliku, Lapaha, Fatumu, and Lavengatonga. The respective Town Officers were engaged to distribute the questionnaires. This done intentionally to minimise having an 'outsider' probing into local villagers daily activities. Thus allowing the village people to be 'free' in answering the questionnaire paper. It is noted here that when specific turbine sites are determined, there will be further dialogue with the communities concerned. It is envisaged that this will be carried out in the last quarter of this year.

For six weeks (June-July 2014), various communities were approached regarding the TPL proposed wind farm in the Hahake Districts. This was followed on with a questionnaire survey, distributed through the Town Officers for each township.

Township:	Number of respondents:	Total Households:
Niutoua	43	119
Haveluliku	18	28
Fatumu	36	67
Lavengatonga	26	69
Lapaha	63	343
Total:	186	626

Table 6: Number of household responds.

6.2 Community Development Perceptions:

As expected, there were a lot of expectations ever since the installment of the monitoring tower in Lapaha about five years ago. This expectation was again brought to the forefront when TPL installed the micro-wind turbine in Nakolo in 2012. In hind sight, people expected to have some type of wind power initiative for some time now.

The general view on foreign aid was very positive and most people cited the projects that helped improve their water supply and reticulation lines. Further, assistances from local people who live overseas was also acknowledged by the local people. However, the participants did raised their desires to see more street lights, and improvement of the lines (poles and poles).

It is quite interesting to see that the needs of the people are predominantly based on their daily life. Hence, the most people (32%) preferred more street lights; need additional lights and poles (17%); and there is need for renewable energy (17%). Only about 1% wished that the tarrif will be lower, which is oddly low figure. Despite this low expression of need to reduce the tarrif; more than 70% acknowledged that the tarriff is too high. Understandably, about a quarter of the participants have needs that were not related to TPL; and some have expressed no needs (9%).

6.3 Community Perception of TPL and the proposed wind farm:

A lot of people admitted that they experienced and witnessed the improvements in TPL's infrastructure and services. Further, most of the participants expressed their appreciation and support for TPL's proposed wind farm.

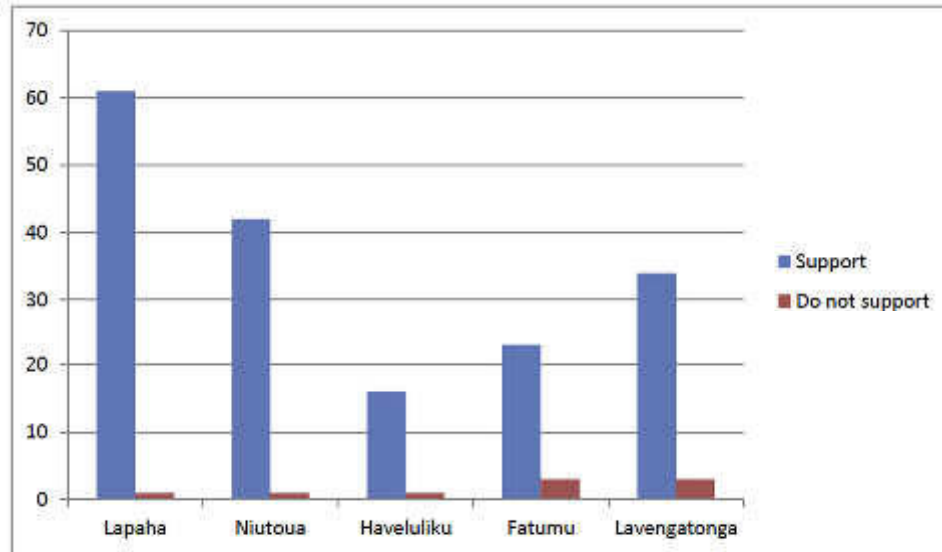


Figure 20: Public support for the proposed wind farm.

Tongatapu Wind Generation Feasibility Study Aurecon Study, Phase 2 Feasibility Study, Final Draft, 1 February 2015

2.2 Site Visits

The following country visits were undertaken during Phase 2, Part 1 of the project:

- Land and Environmental (24-28 Nov) – Shaun Cornelius (Infratec Renewables), Louise Strogen (Aurecon) and Chris Wedding (BioResearches). The purpose of the visit was to meet with key stakeholders (See Appendix 1 for list of meetings) in relation to land acquisition and environmental permitting. The two sites were also visited to undertake an initial assessment of potential environmental and social issues.
- Geotech and Civil (8 – 12 Dec) – Richard Sebastian (Aurecon). The primary purpose of this visit was to dig a number of 2-4m test pits at a range of locations at both sites to assess the general geotechnical conditions in the area and at some of the potential wind turbine positions. The secondary purpose

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MFAT – Tongatapu Wind Generation Feasibility Study – Phase 2 Report – Draft 1 Feb 2015

7 Land Rights Acquisition

All land parcels at both sites that would be potentially be used for wind farm development are privately owned and separate agreements giving the necessary access / occupation rights will be required with each landowner. TPL will be responsible for the securing of land rights sufficient to enable investigations and project development to proceed. TPL have considerable experience in negotiating with landowners and have given thought to how to proceed with land rights acquisition for the project. Infratec staff have provided input to TPL based on their experience with securing land rights for projects in New Zealand and Australia. Key points of the recommended strategy are as follows.

- Land rights acquisition would not commence until the feasibility process has been completed. Securing long term access rights would commence once the Feasibility Study recommendations (including identification of a preferred site) have been accepted by MFAT/TPL/ Govt of Tonga.
- Secure long term access options for the preferred site only and not both. It would be unfair and involve a lot of extra effort to secure both sites if only one is likely to proceed in the near term.
- The landowners at the preferred site will be negotiated with as a group, with everyone offered the same terms. There is expected to be a considerable group and community pressure on any holdouts to come into line.
- Where possible options regarding which properties will be used at the preferred site will be kept open to help ensure agreement can be reached quickly. Also keeping the alternative site in play will aid the negotiations.
- The form of agreement would be an investigation/development agreement that gives:
 - Rights to carry out investigations on the land;
 - An option to put in place leases and easements/ROWs as necessary for the development, with the terms agreed upfront.
- Once the project design is finalised and approved to proceed the leases and easements/ROWs would be put in place.
- The investigation/development agreements would be registered on the land titles, as would the final leases etc.
- The lease term is likely to be 30 years with a right of renewal. There may be a requirement for re-negotiation of the lease payments as part of the renewal, but this depends on the negotiations.
- The starting point for negotiation of lease payments will be a valuation of the leased land, based on current use. Standard rates will apply for compensation for coconut trees, taro patches etc. which are removed / destroyed during investigation / construction.

TPL advise that there is a high degree of awareness and local support for wind development within the communities near the Lapaha site, because of its previous identification as a wind development site. Awareness among the Niutoua communities is lower because the investigations have been low key to date. In both cases TPL anticipate that it will be possible to secure the necessary land rights for a development.



was to assess civil and transportation issues, including meeting with the Ports Authority and concrete production facilities.

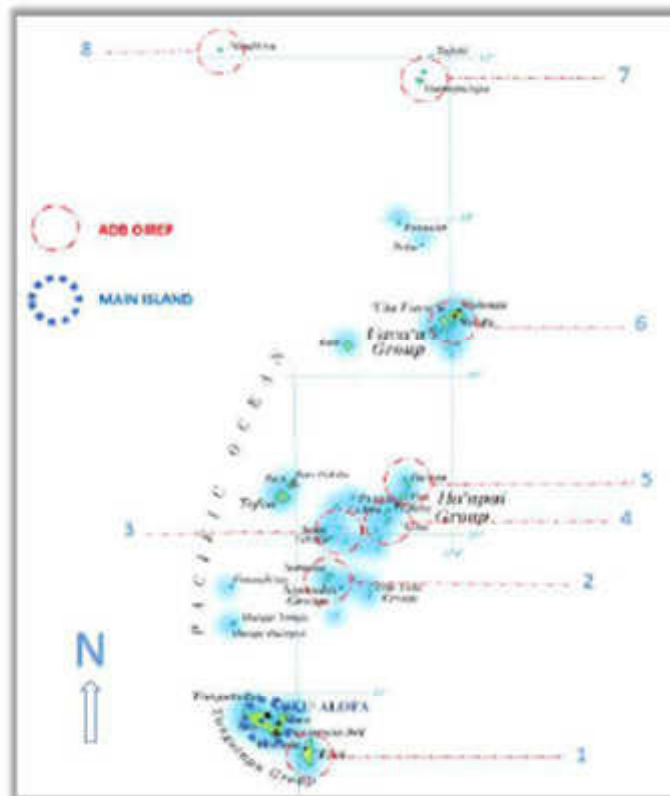
2.3 Site Locations

The general topography of the island is shown in Figure B. The predominant wind direction is south-south-easterly, and the most exposed part of the island is along the south-eastern coast. This is therefore the area with the best wind resource and the focus for potential wind farm development opportunities. The general locations of the two potential wind farm sites reviewed in this study are shown in Figure A. The sites are as follows:

- Niutoua, which has a currently operating wind monitoring mast;
- Lapaha, which was the site of a prior wind monitoring mast;

Mesoscale modelling indicates that the eastern coast of the island represents the best opportunity for wind development, even though potential sites are further from electrical and civil infrastructure.

Tonga "Outer Island Renewable Energy Project"
(OIREP) Phase 2 Site Visit Report. March 2016.



9.9 NFO site visits:

1. STR identified possible locations for each of the Centralised Solar Centres (CSC's). Local consultations as to the ownership of the land also took place.
 - a. For example; the village of Mus has an old Community Hall location with 3 broken water tanks. After consultation, it emerged that the hall is on land belonging to the Wesleyan church and that there are 3 religious denominations within the small village. We were assured however that no discrimination would take place and that the community shall discuss the matter with the head of the Wesleyan church on NFO. The Project should look for proof of this meeting outcome.
2. DFAT and the PM carried out several "one on one" community consultations with local women and men.
3. TPL took the opportunity to carry out their necessary investigations into the possible NFO mini-grid and centralised power station.



Figure 33 shows some of the "old" batteries that have been replaced. They are left to rot and are an environmental risk.



Figure 34 shows an example of the new batteries that have been installed on NFO by the local solar committee.

APPENDIX E- INITIAL LAND OWNER INFORMATION (TPL SITES IN TONGATAPU AND 'EUA)

LAND OWNER INFORMATION																
Site/location	1. Are you open to leasing your land to TPL/WEIDEC for the solar/wind proposed project? (Yes or No)	2. Name of Land Owner	3. Age	4. Main Income Source (e.g. farming, fishing, making boat, remittance, pension etc)	4. Educational Attainment	5. No. of Members in the HH	6. List of name, gender, and age of children	7. No. of dependents (school age up to 18 years old)	8. Are other members in the household who are employed? (Yes or No)	9. If Yes, please state sex and type of work	10. Any member of the household with disability or special needs? (Yes or No)	11. If yes, please state who and type of disability/special needs	12. How much in total earnings, the land do you have access to eg for food/income, outside this site?	13. What are the potential benefits to you and your family, if to lease a portion of your land?	14. Do you have any concerns regarding leasing of this land to TPL/WEIDEC?	15. Any recommendation to the government, if any regarding the project?
	If Yes, go proceed with interview as per form. Information of the land owner directly or through representative															
Eua		Ukano Lusak	90+	Elderly	N/A	3 (Landowner, eldest daughter, youngest daughter & husband with 4 children)	1. Tupulaka Lusak (M) 2. Anne Lusak (F) 3. Male Lusak-Make (F) 4. Filimono Lusak (M)	ML	NO	N/A	YES	Land owner is elderly and requires special caring for by his daughters when they live together				
Fakala		Makela Seniali		deceased												
		Makela Lasi Oia		deceased (Her residence in Haveli - Uka Oia (nr))												
Matatunu		1. Nobel land	65	Male (Parliament)	HS (High school)		3 children (Fu Hushong, Rotzelli & Lapana (F), Siale Mui Tau M Vabaki (M) Herot (M), Paula Mualisi Kee (M) David Uakaki (M), Jordan (M)									
Matatunu		2. Nobel land	65													
Matatunu Village		1. Veleing na Tupas (contact person: Amelili Pukera 844-7389)	77 (officer)	pension (retired town officer)		Y	Wesley (M), Una (M), Veleingene (deceased), Amelili (F), Veleingene (F), Rakod (M), Penakeli (F)		YES (Amelili's husband)	Army Soldier	NO					
Nukunua	1	Latu Kongika	63	Living in Melbourne, Australia (1 Cedar Court, alfons Meadows Melbourne (00613)93696756												
	2	Toboa Pohahau (Lives in Nukunua,)	48	Farming		4	4 children (2 of which are currently with their parents here in Tonga whom are still in high school)	2 (F=1; M=1)	NO		NO	NO				

LANDOWNER INFORMATION (NEDECC - HA'APU OUTER ISLANDS)

[illegible]